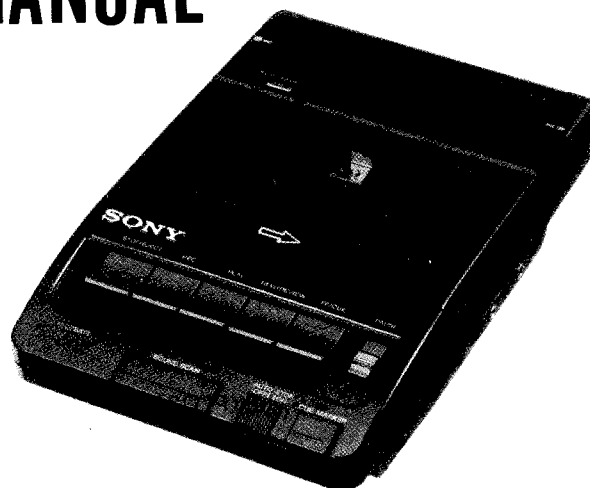


# TCS-2000

## SERVICE MANUAL



*US Model  
Canadian Model  
AEP Model  
UK Model  
E Model*

### SPECIFICATIONS

Recording system	4-track 2-channel stereo
Speaker	Approx. 6.6 cm (2 5/8 inches) × 3.8 cm (1 1/2 inches)
Frequency response	100-10,000 Hz
Input	Microphone input jack (PLUG IN POWER) (stereo minijack) sensitivity 0.3 mV (− 68 dB) for 3 kilohms or lower impedance microphone
Output	Headphones output jack (stereo minijack) load impedance 8 to 300 ohms
Power output	Headphones: 6 mW + 6 mW (16 ohms, at 10% harmonic distortion)
Power requirements	Speaker: 230 mW (at 10% harmonic distortion) 6V DC, four size AA (R6) batteries DC IN 6V jack accepts: optional Sony AC-D4M AC power adaptor for use on 120V AC, 60Hz optional Sony DCC-127A car battery cord for use on 12V car battery

Battery life (hours)

Batteries	Recording	Playback (speaker)	Playback (headphones)
Sony alkaline battery AM3(N)	Approx. 5	Approx. 5	Approx. 5.5

For maximum performance, we recommend the use of alkaline batteries.

Dimensions	Approx. 131 × 42.2 × 202.8 mm (w/h/d) (5 1/4 × 1 11/16 × 8 inches) incl. projecting parts and controls
Weight	Approx. 700 g (1 lb 9 oz) incl. batteries, not incl. other accessories
Supplied accessory	Carrying case (1)
Optional accessories	AC power adaptor AC-D4M Car battery cord DCC-127A Electret condenser stereo microphone ECM-202 Stereo headphones MDR-A10L Head demagnetizer HE-5C Head cleaner KK-31 Foot switch FS-10A

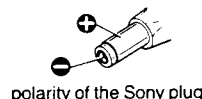
Your dealer may not handle some of the above listed optional accessories. Please ask the dealer for detailed information about the optional accessories available in your country.

Design and specifications subject to change without notice.



Model Name	Using Similar Mechanism	New
Tape Transport Mechanism Type		MT-2000-61

**Note:** Use only the recommended AC power adaptor or car battery cord manufactured by Sony. Polarity of the plugs of other manufacturers may be different.



### FEATURES

- **Sound scan function** plays back recorded material at approximately 1/4th the time spent for recording, by skipping parts of the contents at certain intervals. This function allows you to quickly check what is recorded on the tape.
- **Cue marker** marks an inaudible cue marker signal at a desired position of the tape during recording. **Auto stop function** quickly locates the cue marker position while playing back.
- **Stereo recording.** Stereo playback is possible with optional stereo headphones.
- **NOISE REDUCTION switch** decreases tape hiss.

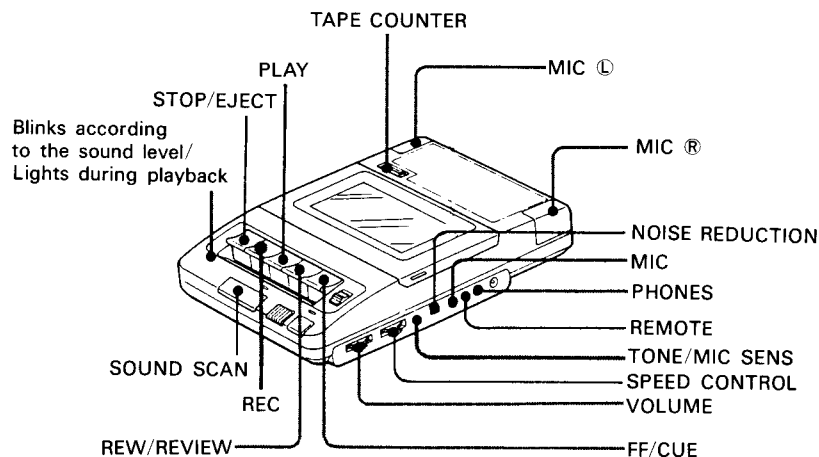
**STEREO CASSETTE RECORDER**  
**SONY®**

## TABLE OF CONTENTS

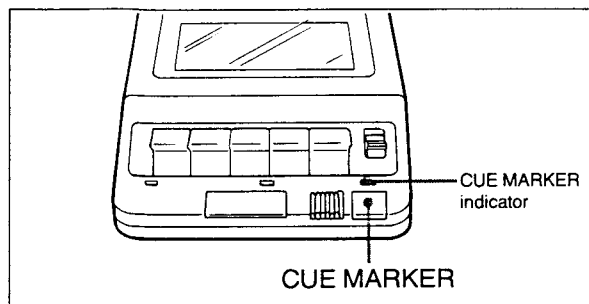
<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
<b>1. GENERAL</b>			<b>4. ELECTRICAL ADJUSTMENTS</b>		
1-1.	Parts Identification .....	2	4-1.	Tape Recoder Section .....	6
1-2.	Recording a Cue Marker .....	3	<b>5. DIAGRAMS</b>		
1-3.	Locating Cue Markers .....	3	5-1.	Printed Wiring Boards .....	10
1-4.	Scanning Sound .....	3	5-2.	Schematic Diagrams .....	15
<b>2. DISASSEMBLY</b>			<b>6. EXPLODED VIEWS</b>		
2-1.	Cabinet Rear Assy.....	4	6-1.	Cabinet Section .....	19
2-2.	Main Board .....	4	6-2.	Mechanism Section (1) (MT-2000-61) .....	20
2-3.	Mechanism Deck and Main Board Block .....	5	6-3.	Mechanism Section (2) (MT-2000-61) .....	21
2-4.	FR Belt (Bottom) Replacement .....	5	<b>7. ELECTRICAL PARTS LIST</b> .....		22
<b>3. MECHANICAL ADJUSTMENTS</b> .....		6			

SECTION 1  
GENERAL

## 1-1. PARTS IDENTIFICATION



## 1-2. RECORDING A CUE MARKER

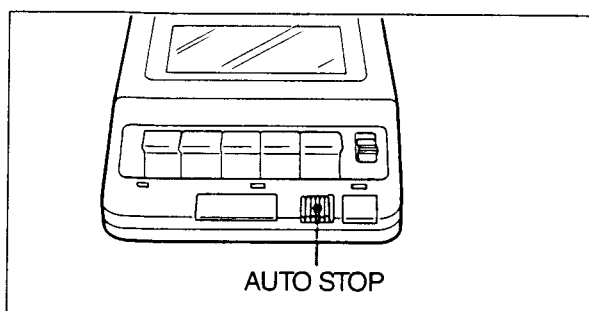


During recording, press CUE MARKER at the position you want to listen to later. The CUE MARKER indicator lights up, and a cue marker is recorded.

### Notes on the cue marker

- You can record as many cue markers as you want.
- If you press STOP immediately after pressing CUE MARKER, the cue marker is not recorded.
- After pressing CUE MARKER, wait until the indicator goes out before continuing to record.

## 1-3. LOCATING CUE MARKERS

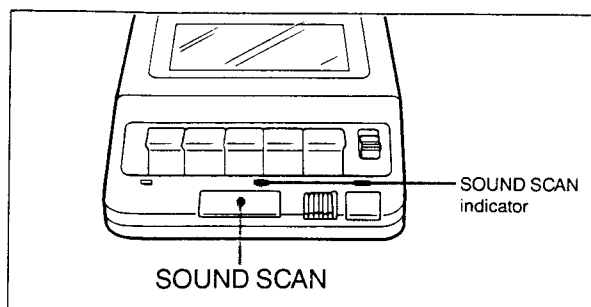


- 1 Play back the tape with the cue markers.
- 2 Set AUTO STOP to ON.
- 3 Keep pressing FF/CUE or REW/REVIEW. At the cue marker position, a beep tone is heard and the tape stops automatically. (The beep tone may not be heard if the volume is very low.)
- 4 Release FF/CUE or REW/REVIEW to start playback.

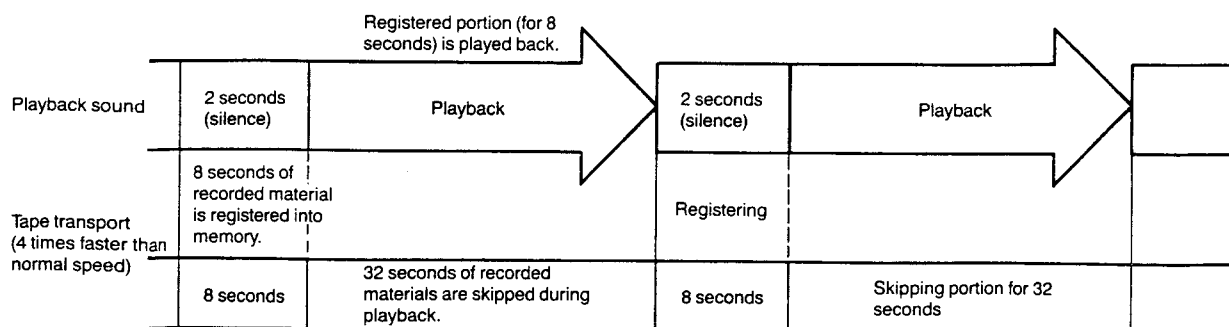
### Notes

- The beep tone (cue marker signal) is not heard during normal playback.
- With a tape on which very low frequency sounds are recorded, the tape may stop at an unexpected position.

## 1-4. SCANNING SOUND



Press SOUND SCAN during playback. The SOUND SCAN indicator lights, and the tape is transported 4 times faster than the normal speed.



### When SOUND SCAN is pressed

In about 2 seconds, 8 seconds of recorded material will be registered in the built-in memory. (Nothing is heard during this period.) Then the registered sound will be played back for 8 seconds. During these 8 seconds, 32 seconds of recording will be skipped. These steps will be repeated, allowing you to check roughly the contents of the tape in about 1/4th of the time spent for recording.

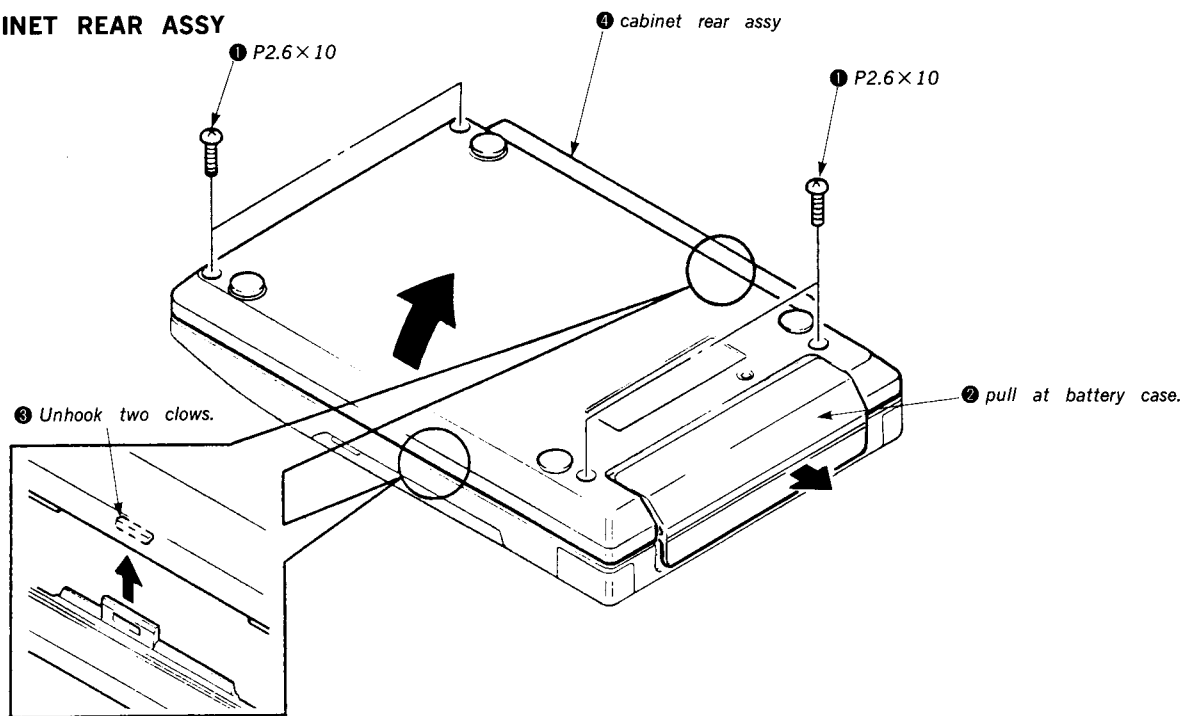
To stop scanning, press SOUND SCAN, FF/CUE, or REW REVIEW. The unit returns to a normal playback.

**Note:** The sound is monaural during sound scanning, and the sound quality may differ from the normal playback sound.

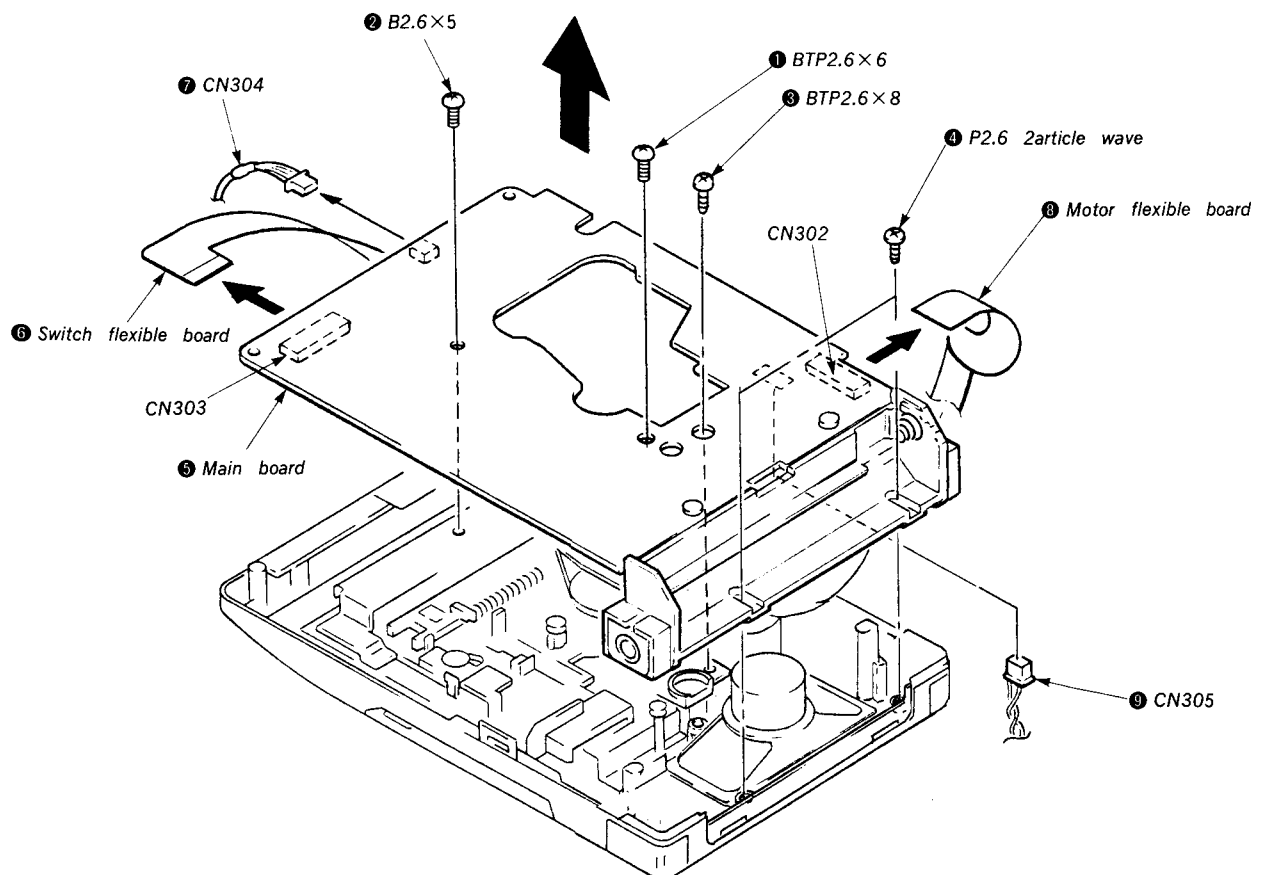
## SECTION 2 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

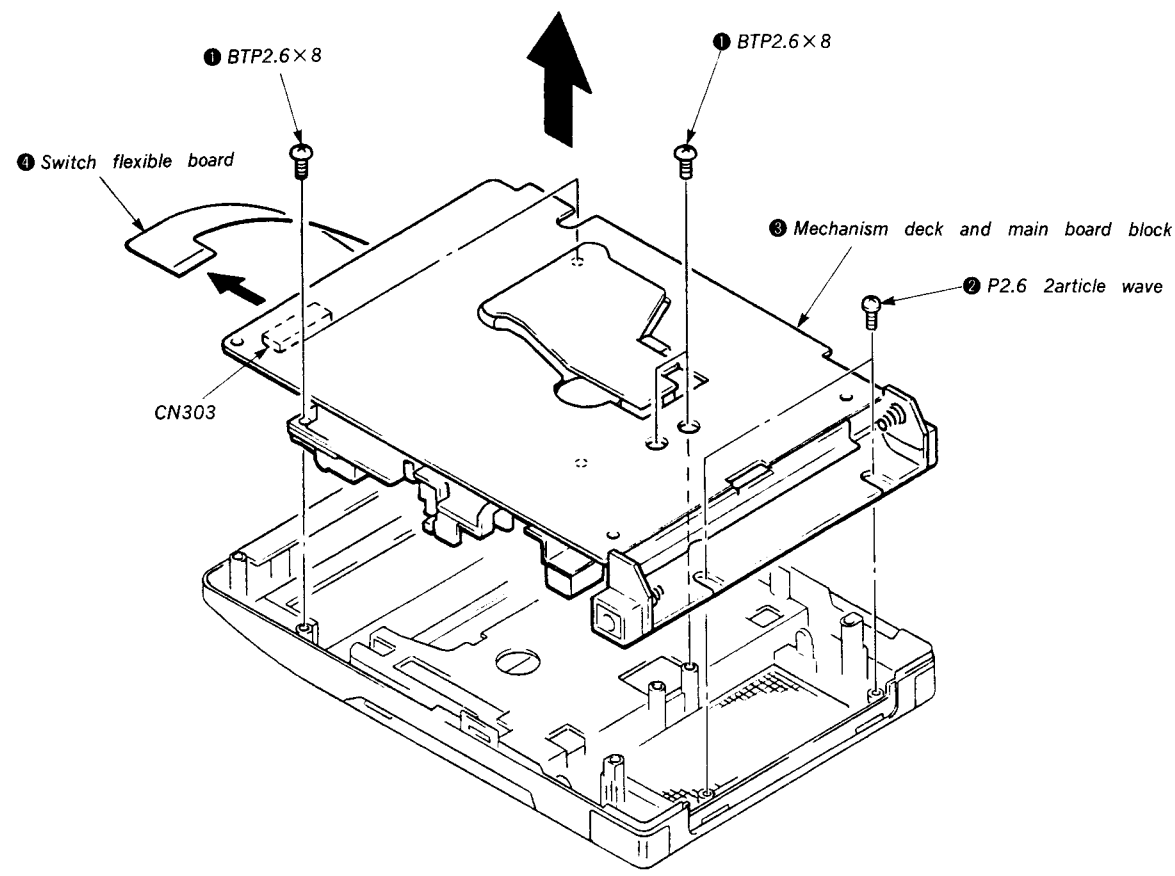
### 2-1. CABINET REAR ASSY



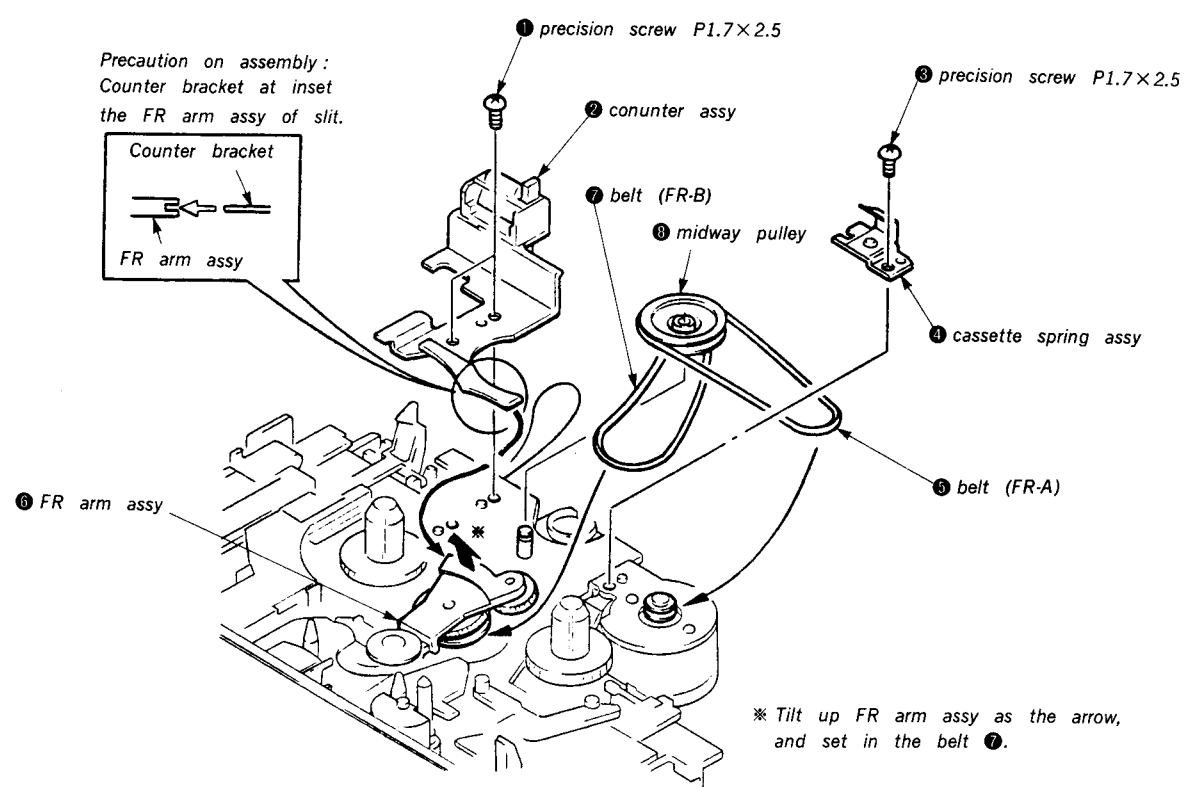
### 2-2. MAIN BOARD



2-3. MECHANISM DECK AND MAIN BOARD BLOCK



2-4. FR BELT (BOTTOM) REPLACEMENT



SECTION 3  
MECHANICAL ADJUSTMENTS

PRECAUTION

- Clean the following parts with a denatured-alcohol-moistened swab:
  - record/playback head
  - erase head
  - capstan
  - pinch rollers
  - rubber belts
  - idlers
- Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.
  - Power supply voltage : 5Vdc
  - VOLUME : MAX
  - SPEED CONTROL : Center
  - NOISE REDUCTON : OFF
  - TONE/MIC SENS : HIGH
  - AUTO STOP : ON
  - PAUSE : OFF

Torque Measurement

mode	Meter reading	Torque meter
Forward	25 to 45g·cm (0.35 to 0.63oz·inch)	CQ-102C
Fast Forward and Rewind	more than 60g·cm (more than 0.83oz·inch)	CQ-201B
Back Tension	1 to 3g·cm (0.014 to 0.042oz·inch)	CQ-102C

SECTION 4  
ELECTRICAL ADJUSTMENTS

4-1. TAPE RECORDER SECTION

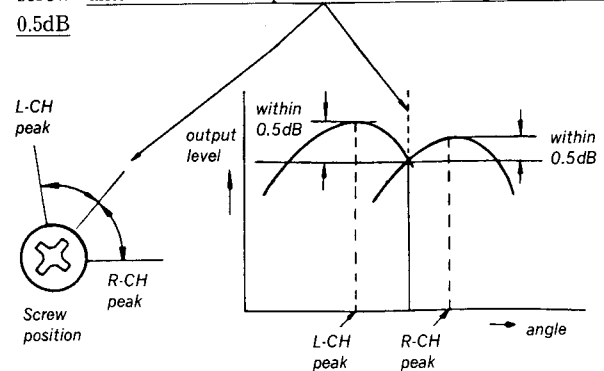
• Test Tape

Type	Signal	Used for
WS-48A	3kHz, 0dB	tape speed adjustment
P-4-A063	6.3kHz, -10dB	head azimuth adjustment

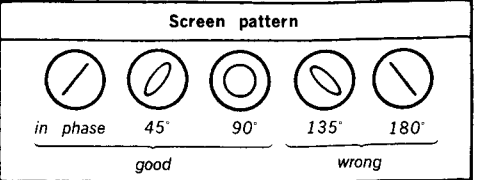
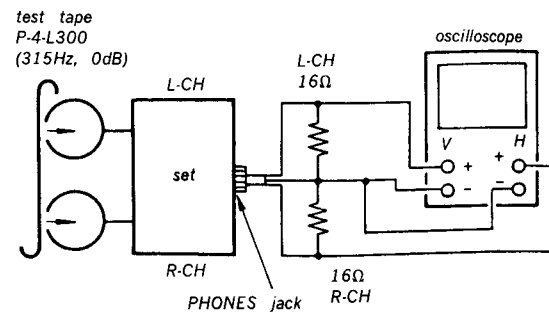
Playback Head Azimuth Adjustment

Procedure:

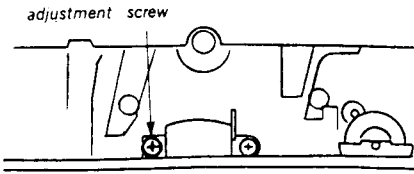
- Mode: playback
  - test tape P-4-A063 (6.3kHz, -10dB)
  - Diagram showing a test setup with a tape deck, a 16Ω resistor, and a VTVM connected to the PHONES jack.
- Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 0.5dB



- Phase Check
  - Mode: playback



Adjustment Location:



Tape Speed A

Procedure:  
Mode: playback

test tape  
WS-48A  
(3kHz, 0dB)

Adjustment Val

Speed checker
±1%

Adjust RV602 t  
difference betwe

PB NR Level

Procedure:

test ta  
P-4-L300  
(315Hz, 0dB)

Adjust RV101 (L  
adjustment level

Adjustment Val  
PB NR level: 0

Level djfference

Confirm that the  
mode while chan  
times.

## SECTION 3 MECHANICAL ADJUSTMENTS

### PRECAUTION

the following parts with a denatured-alcohol-  
ened swab:  
ord/playback head pinch rollers  
se head rubber belts  
ostan idlers  
agnetize the record/playback head with a head  
agnetizer. (Do not bring the head demagnetizer close  
e erase head.)  
ot use a magnetized screwdriver for the adjustments.  
r the adjustments, apply suitable locking compound to  
parts adjusted.

adjustments should be performed with the rated  
r supply voltage unless otherwise noted.

ower supply voltage : 5Vdc  
OLUME : MAX  
PEED CONTROL : Center  
ISE REDUCTON : OFF  
ONE/MIC SENS : HIGH  
UTO STOP : ON  
USE : OFF

### Torque Measurement

mode	Meter reading	Torque meter
Forward	25 to 45g·cm (0.35 to 0.63oz·inch)	CQ-102C
Fast Forward and Rewind	more than 60g·cm (more than 0.83oz·inch)	CQ-201B
Back Tension	1 to 3g·cm (0.014 to 0.042oz·inch)	CQ-102C

## SECTION 4 ELECTRICAL ADJUSTMENTS

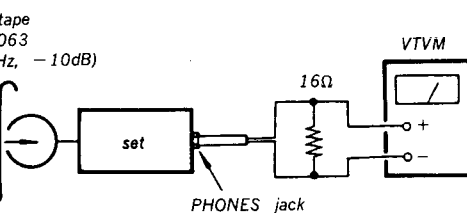
### TAPE RECORDER SECTION

#### Tape

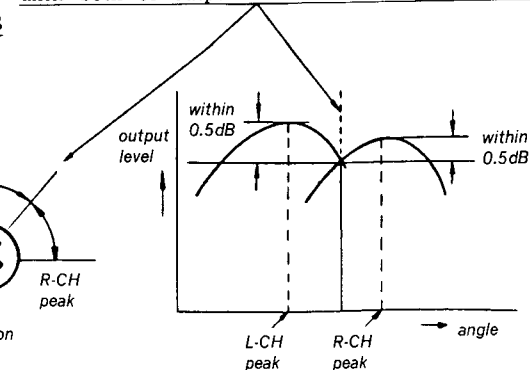
	Signal	Used for
	3kHz, 0dB	tape speed adjustment
	6.3kHz, -10dB	head azimuth adjustment

#### Head Azimuth Adjustment

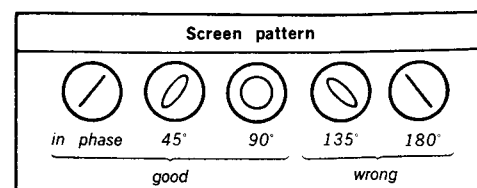
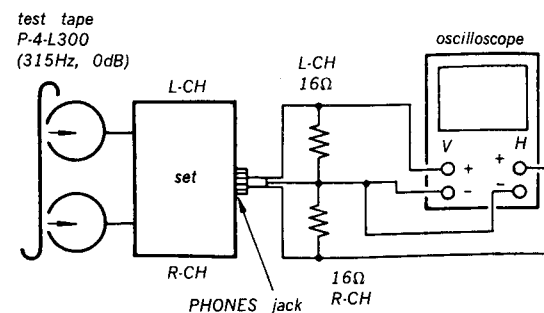
e:  
e: playback



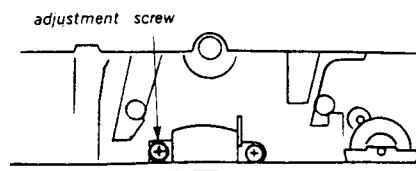
the adjustment screw for the maximum output  
s. If these levels do not match, turn the adjustment  
until both of output levels match together within



#### 3. Phase Check Mode: playback

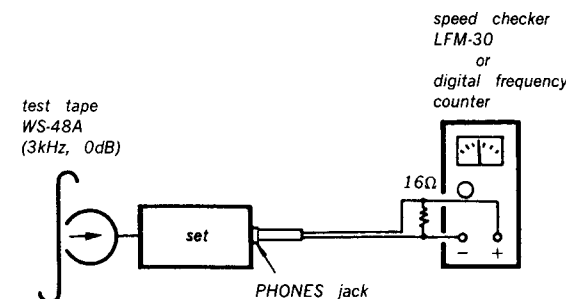


#### Adjustment Location:



### Tape Speed Adjustment

Procedure:  
Mode: playback



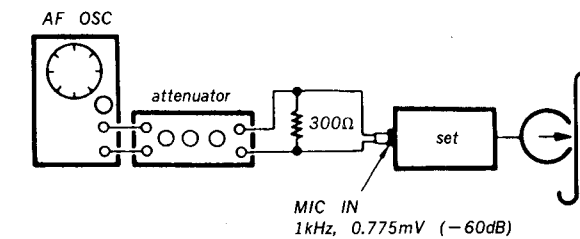
#### Adjustment Value:

Speed checker	Digital frequency counter
±1%	2,985 to 3,015Hz

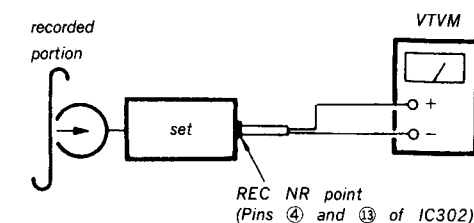
Adjust RV602 to be within ±1% so that the frequency  
difference between the beginning and the end of the tape.

### REC NR Level adjustment

Procedure:  
1. Mode: record



2. Mode: playback



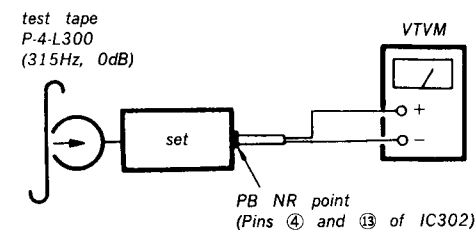
Play back the recorded in step 1. If the adjustment value is  
not satisfied adjust RV102 (L-CH) and RV202 (R-CH) to  
repeat step 1 and 2.

#### Adjustment Value:

REC NR level: 0.0691 to 0.0775V  
(-21 to -20dBs)

### PB NR Level Adjustment

Procedure:



Adjust RV101 (L-CH) and RV201 (R-CH) so that the within  
adjustment level as follows.

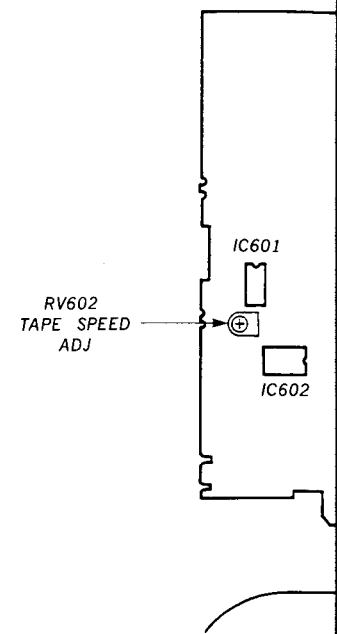
#### Adjustment Value:

PB NR level: 0.0691 to 0.0775V  
(-21 to -20dBs)

Level difference between channels: Within 0.5dB

Confirm that the PB NR level does not change in playback  
mode while changing the mode from playback to stop several  
times.

Adjustment Location: main

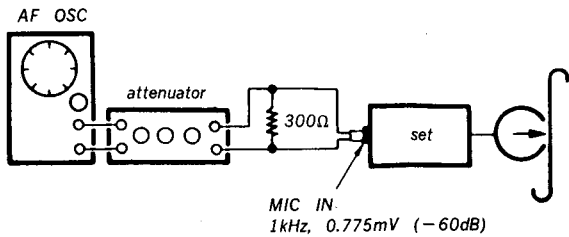


SECTION 5  
DIAGRAMS

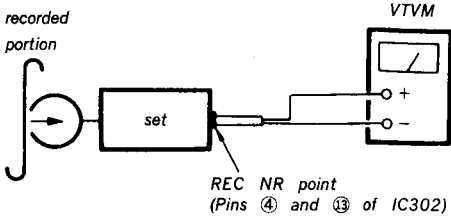
REC NR Level adjustment

Procedure :

1. Mode : record



2. Mode : playback

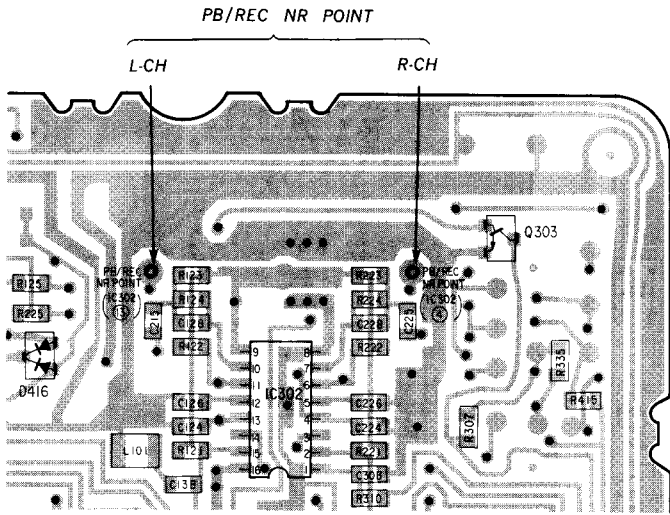
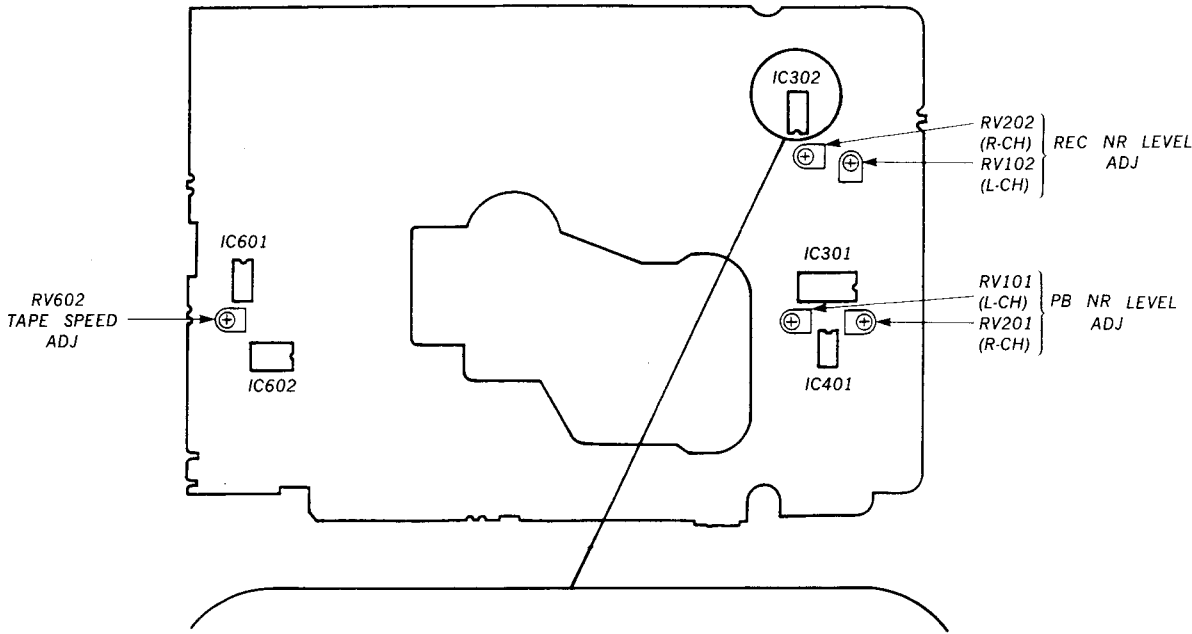


Play back the recorded in step1, If the adjustment value is not satisfied adjust RV102 (L-CH) and RV202 (R-CH) to repeat step1 and 2.

Adjustment Value :

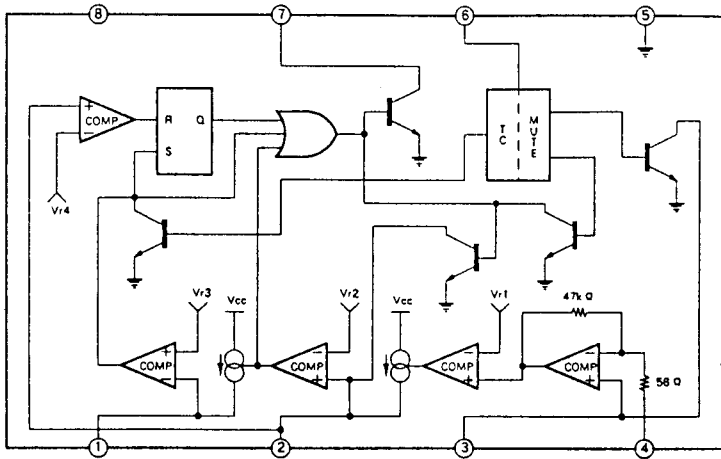
REC NR level: 0.0691 to 0.0775V  
(-21 to -20dBs)

Adjustment Location : main board (A side)

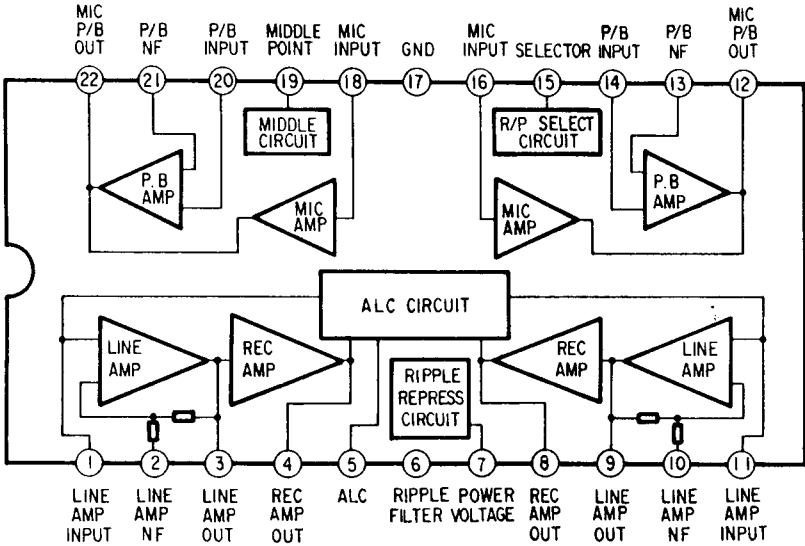


● IC Block Diagrams

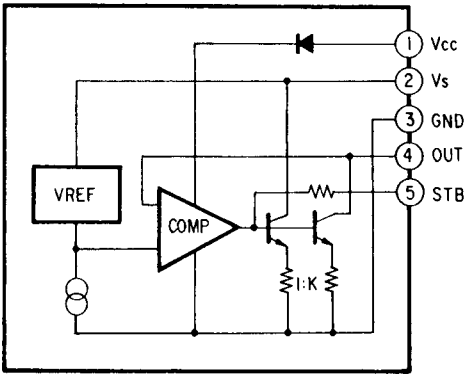
IC403 BA3708F



IC301 AN7015S



IC603 LA5537

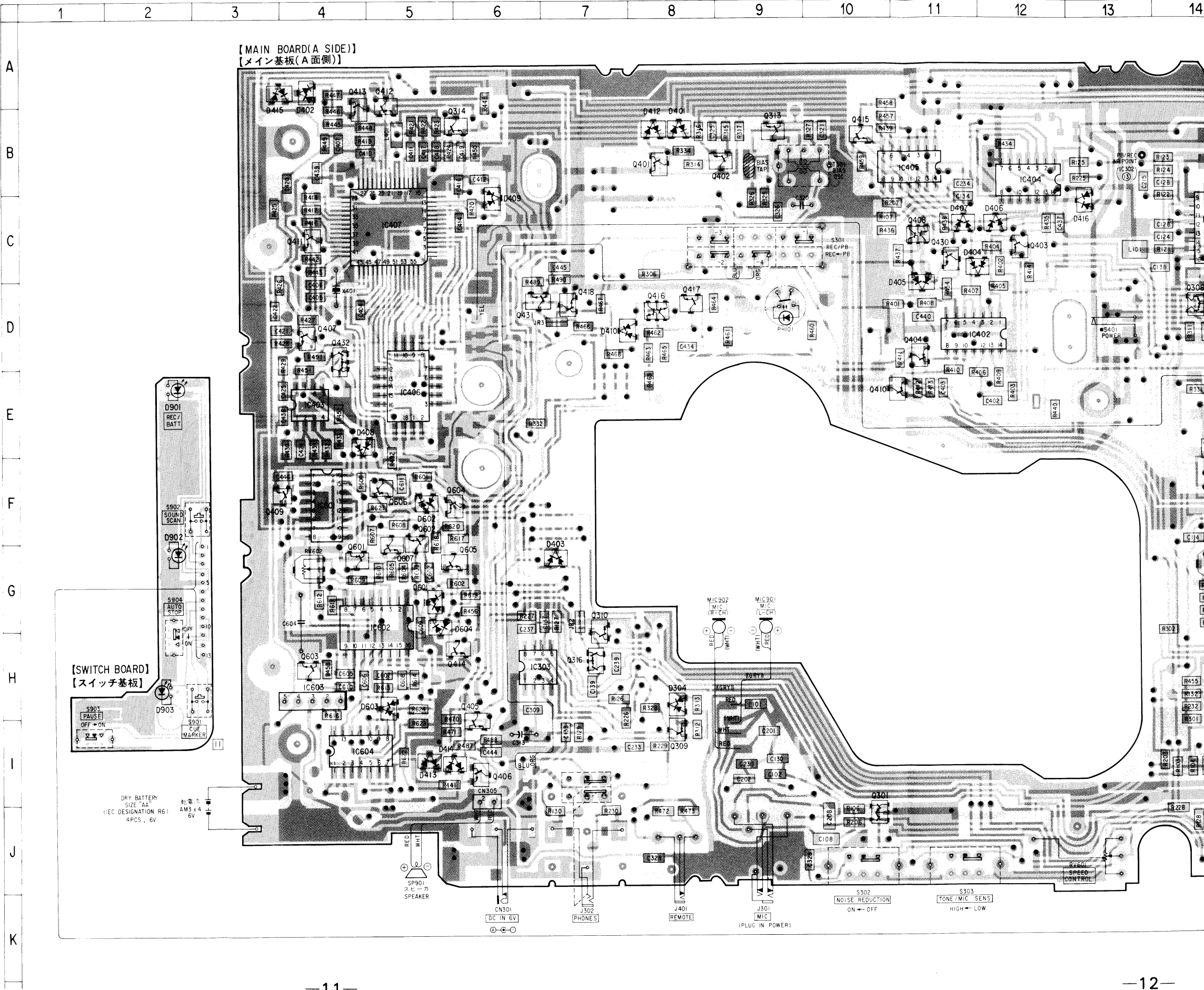


5-1. PRINTED WIRING BOARDS ●Refer to page 18 for Semiconductor Lead Layouts.

●Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D301	E-16	Q313	B-9
D302	E-15	Q314	B-6
D303	E-16	Q315	H-14
D304	H-8	Q316	H-7
D401	B-8	Q401	B-8
D402	A-4	Q402	B-9
D403	G-7	Q403	C-12
D404	C-11	Q404	D-11
D405	C-11	Q405	H-6
D406	C-12	Q406	I-6
D407	C-11	Q407	D-4
D408	E-4	Q408	C-11
D409	C-6	Q409	F-4
D410	D-7	Q410	E-11
D412	B-8	Q411	C-4
D413	I-5	Q412	A-5
D414	I-5	Q413	B-4
D415	A-3	Q414	H-6
D416	C-13	Q415	B-10
D601	G-5	Q416	D-8
D602	F-5	Q417	D-8
D603	H-5	Q418	D-7
D604	G-5	Q419	C-29
D901	E-2	Q420	C-29
D902	G-2	Q421	C-28
D903	H-2	Q422	D-28
		Q423	E-29
IC301	F-15	Q424	D-30
IC302	C-14	Q425	F-29
IC303	H-6	Q426	E-29
IC401	G-15	Q427	E-29
IC402	D-11	Q428	E-28
IC403	E-4	Q429	D-29
IC404	B-12	Q430	C-11
IC405	B-11	Q431	D-6
IC406	E-5	Q432	D-4
IC407	C-5	Q601	G-4
IC408	B-29	Q602	F-5
IC601	F-4	Q603	H-4
IC602	G-5	Q604	F-5
IC603	H-4	Q605	G-5
IC604	I-4	Q606	F-5
		Q607	F-5
Q301	J-10		
Q302	H-14		
Q303	B-16		
Q304	I-15		
Q305	H-15		
Q306	E-15		
Q307	D-15		
Q308	D-14		
Q309	I-8		
Q310	G-7		
Q311	H-16		
Q312	H-16		

- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : Through hole.
- : Pattern on the side which is seen.
- ⬤ : Pattern of the rear side.





### For Semiconductor Lead Layouts.

5

6

7

8

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19

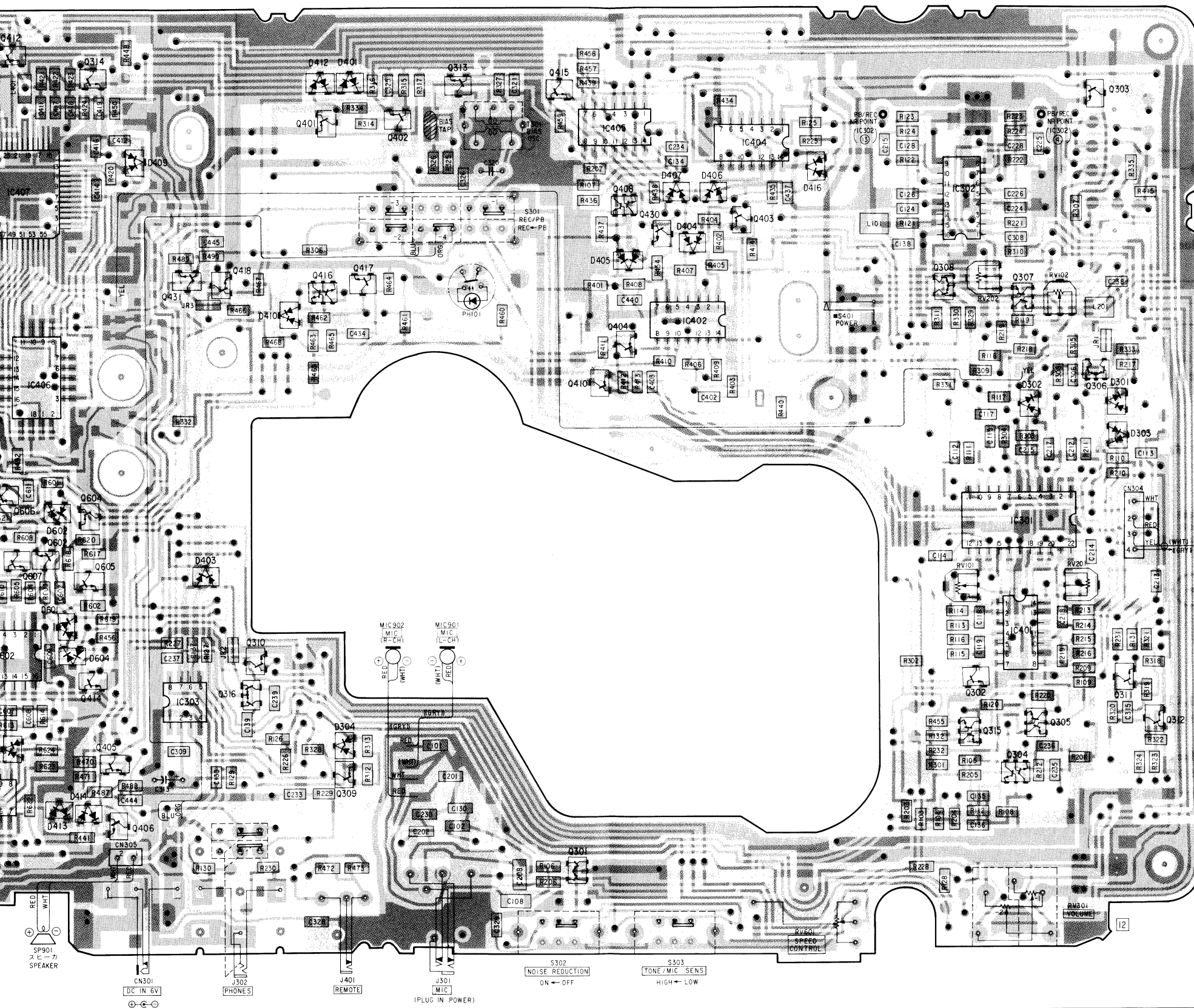
20

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21

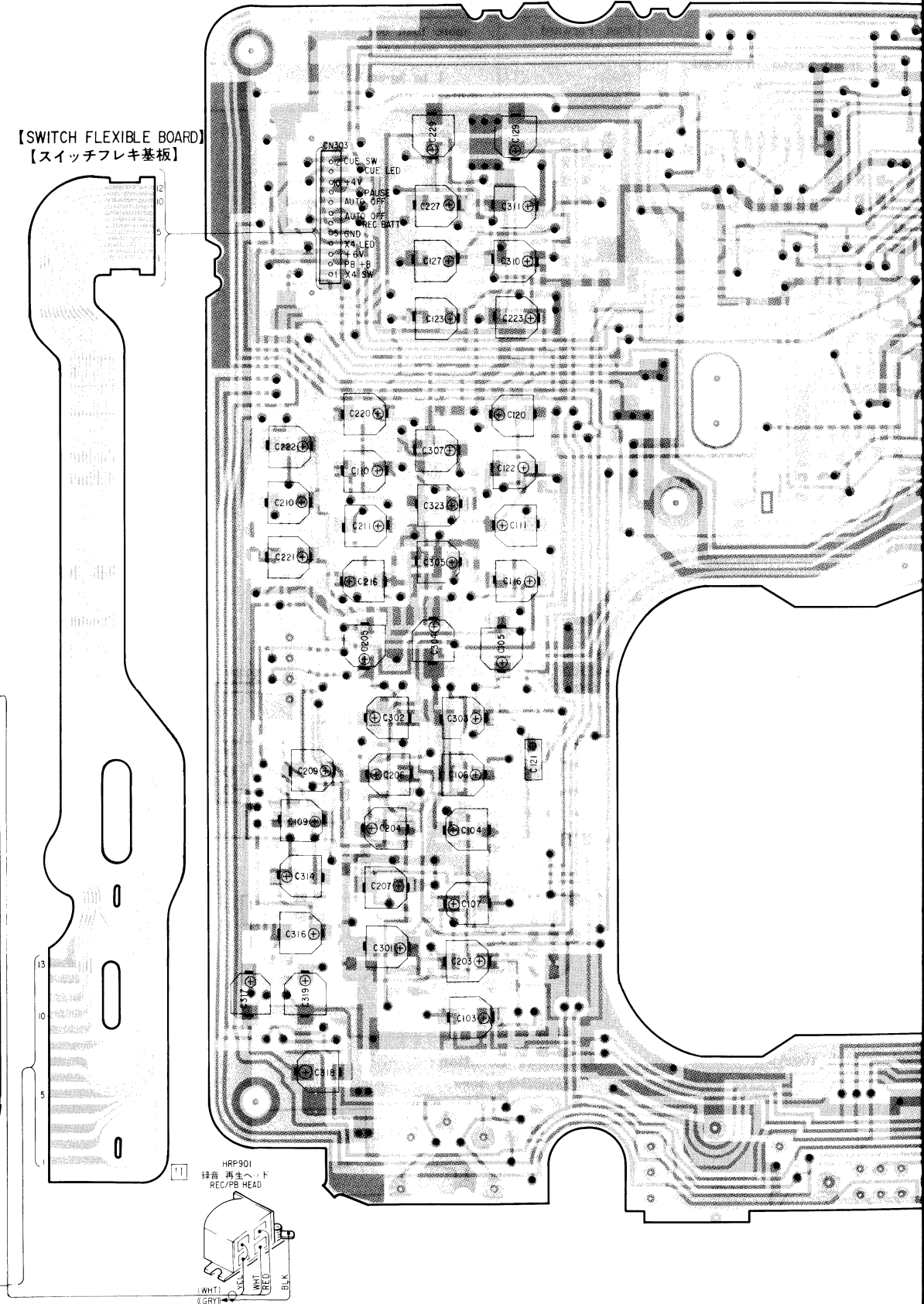
22

23



【MAIN BOARD (B SIDE)】  
【メイン基板(B面側)】

【SWITCH FLEXIBLE BOARD】  
【スイッチフレキ基板】



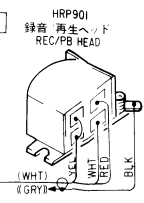
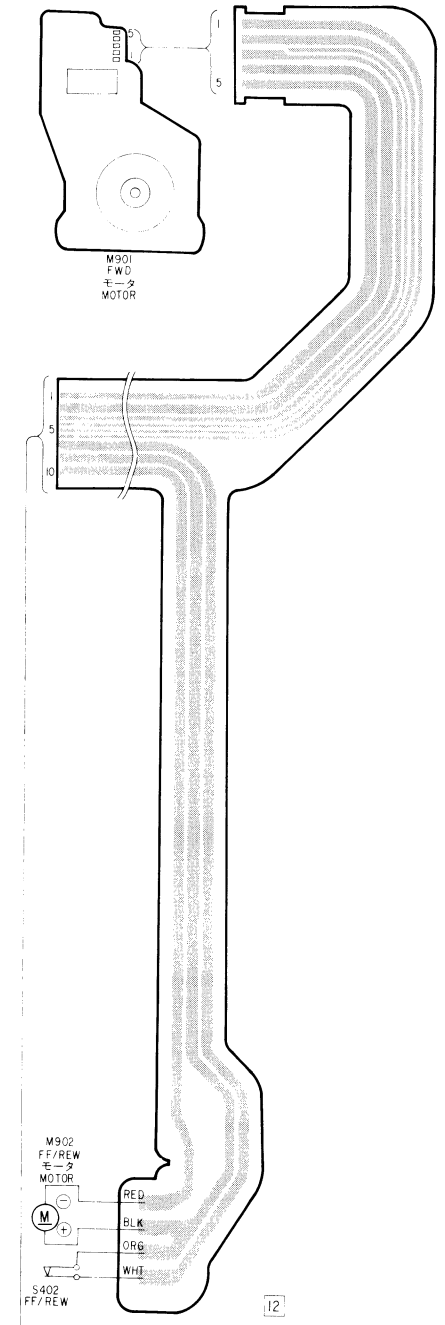
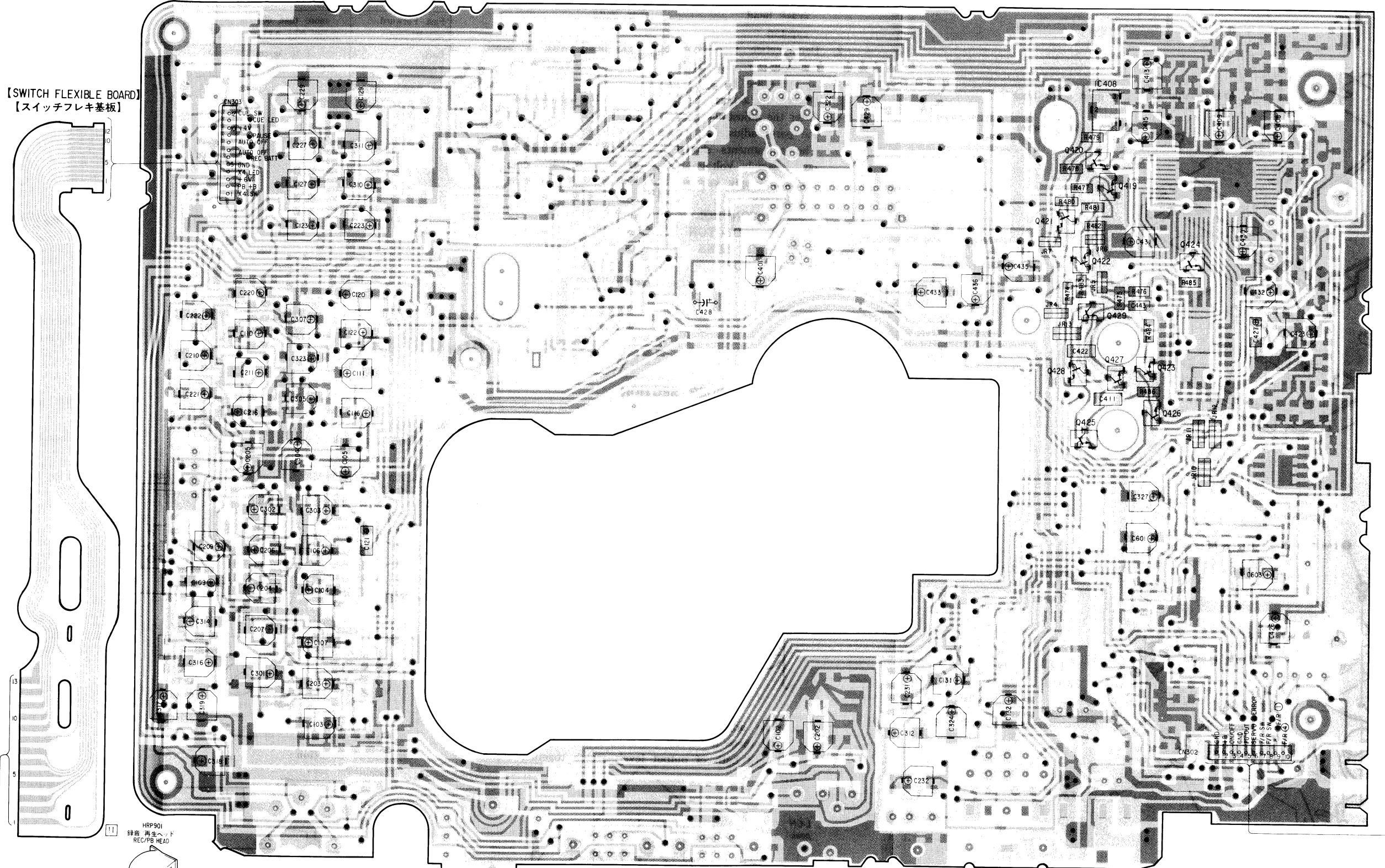


17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

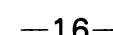
【MAIN BOARD (B SIDE)】  
【メイン基板(B面側)】

【SWITCH FLEXIBLE BOARD】  
【スイッチフレキシブル基板】

【MOTOR FLEXIBLE BOARD】  
【モータフレキシブル基板】

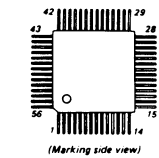


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----



# 5-3. SEMICONDUCTOR LEAD LAYOUTS

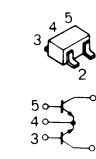
CXD1148AQ



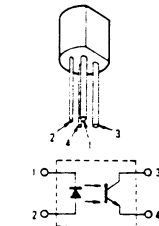
MB81464-12PD



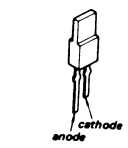
FMG4  
FMW1



NJL5141E-AA



SLP151B-60  
SLP251B



## Note:

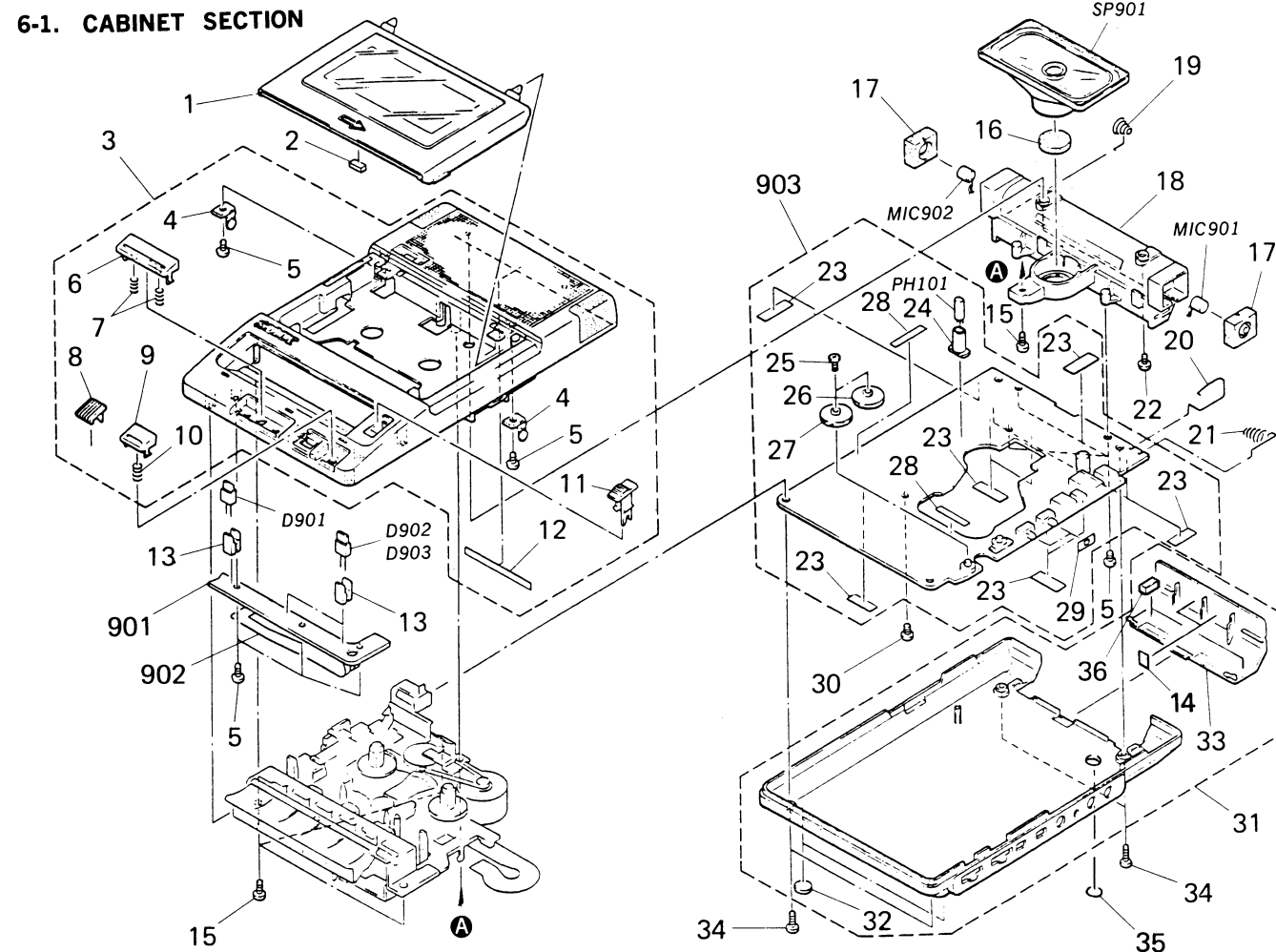
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}\text{W}$  or less unless otherwise specified.
- no mark : PB
- ( ) : REC
- < > : FF
- [ ] : SOUND SCAN
- Voltages are taken with a VOM (Input impedance  $10\text{M}\Omega$ ) Voltage variations may be noted due to normal production tolerances.
- Signal path.
- $\Sigma$  : PB
- $\Sigma\Sigma$  : REC

## SECTION 6 EXPLODED VIEWS

### NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts  
Example:  
(RED) ... KNOB, BALANCE (WHITE)  
↑ Cabinet's Color      ↑ Parts' Color

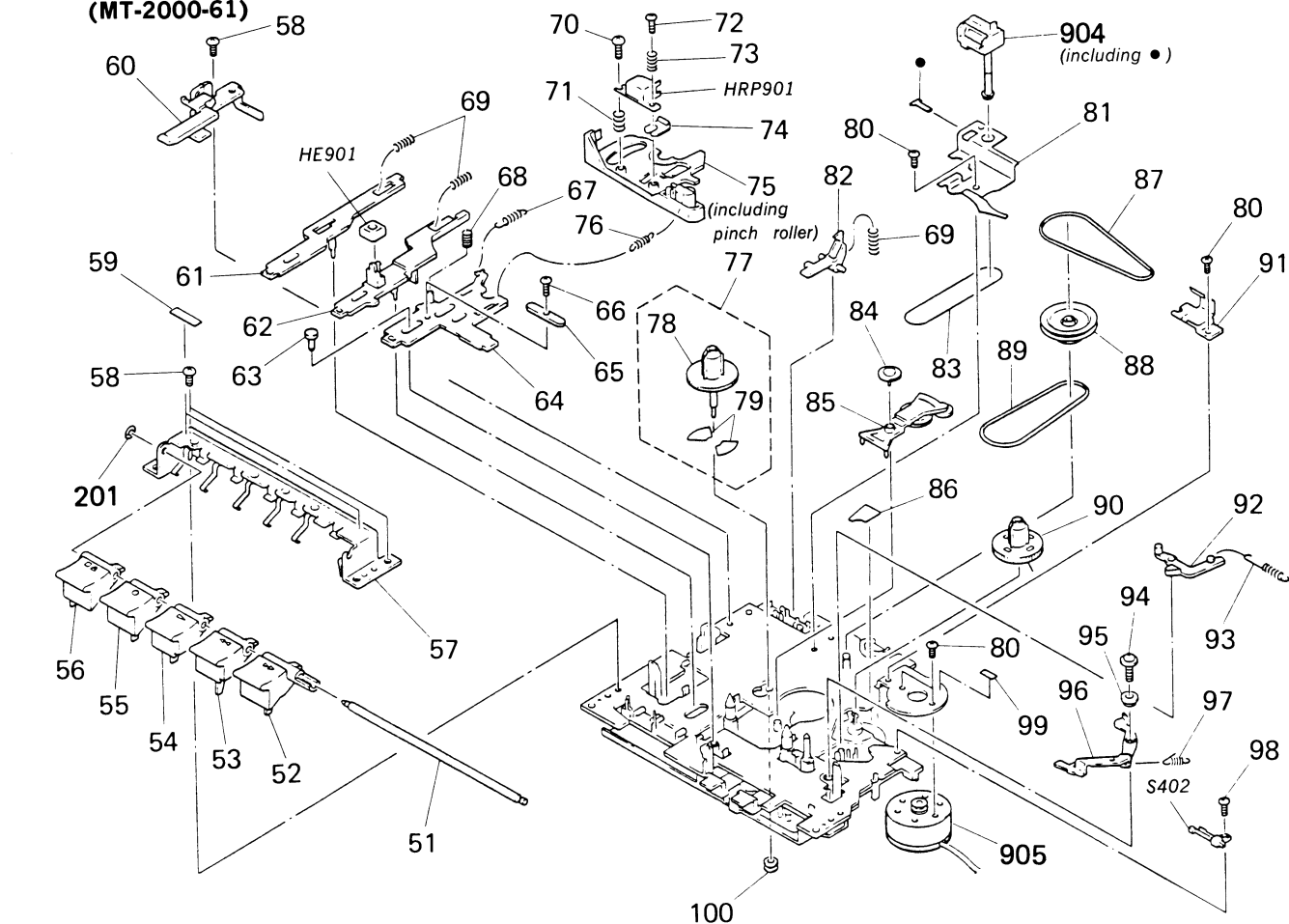
### 6-1. CABINET SECTION



Ref.No	Part No.	Description	Remarks
1	X-3351-203-1	LID ASSY, CASSETTE	
2	3-485-330-21	FELT	
3	X-3351-204-1	CABINET (FRONT) ASSY	
4	X-3351-201-1	BRACKET (SPRING) ASSY	
5	7-685-133-19	SCREW +BTP 2.6X6 TYPE2 N-S	
6	3-351-219-01	BUTTON (SOUND SCAN)	
7	3-351-210-01	SPRING, COMPRESSION	
8	3-351-205-01	KNOB (AUTO STOP)	
9	3-351-220-01	BUTTON (CUE MARKER)	
10	3-351-209-01	SPRING, COMPRESSION	
11	3-351-221-01	KNOB (PAUSE)	
12	3-831-441-XX	SPACER	
13	3-351-217-01	HOLDER, LED	
14	9-911-845-XX	CUSHION	
15	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
16	3-831-441-XX	CUSHION, SPEAKER	
17	3-351-201-01	CUSHION (MICROPHONE)	
18	*3-351-227-01	CHASSIS, SUB	
19	3-896-450-01	SPRING	
20	3-351-206-01	TERMINAL, PLUS	
21	3-351-207-01	SPRING	
22	3-351-290-01	SCREW, (+P 2.6) (2 ARTICLE WAVE)	
23	3-831-441-11	CUSHION (B)	

Ref.No	Part No.	Description	Remarks
24	3-351-224-01	HOLDER (SENSOR)	
25	3-714-118-01	SCREW (1.7X4)	
26	3-351-214-01	KNOB (SPEED)	
27	3-351-215-01	KNOB (VOL)	
28	3-831-441-11	CUSHION (B)	
29	3-305-653-00	PLATE (A), BLIND	
30	7-621-770-87	SCREW +B 2.6X5	
31	X-3351-213-1	CABINET (REAR) ASSY	
32	3-319-288-01	FOOT	
33	3-351-226-01	LID, BATTERY CASE	
34	7-685-135-19	SCREW +P 2.6X10 TYPE2 SLIT	
35	3-342-380-01	SHEET, SPEED HOLE	
36	3-831-441-XX	CUSHION (B), CABINET	
901	*1-629-354-11	PC BOARD, SWITCH	
902	1-629-355-11	PC BOARD, SWITCH FLEXIBLE	
903	*A-3015-719-A	PC BOARD ASSY, MAIN	
D901	8-719-938-11	DIODE SLP151B-60	
D902	8-719-902-51	DIODE SLP251B	
D903	8-719-902-51	DIODE SLP251B	
MIC901	1-542-092-11	MICROPHONE, ELECTRET CONDENSER	
MIC902	1-542-092-11	MICROPHONE, ELECTRET CONDENSER	
PH101	8-719-751-42	DIODE NJL5141E-AA	
SP901	1-544-118-11	SPEAKER	

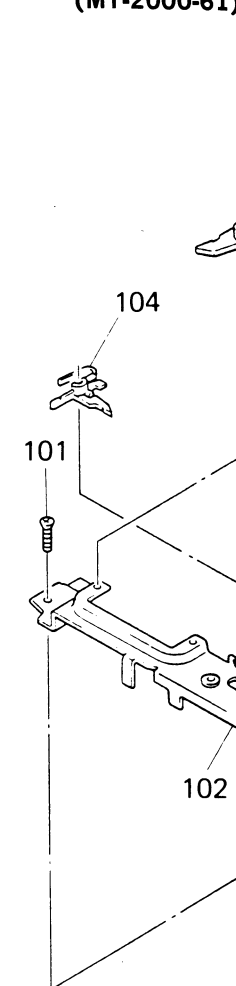
### 6-2. MECHANISM SECTION (1) (MT-2000-61)



Ref.No	Part No.	Description	Remarks
51	3-351-235-01	SHAFT (BUTTON)	
52	3-351-265-01	BUTTON (FF)	
53	3-351-264-01	BUTTON (REW)	
54	3-351-261-01	BUTTON (PLAY)	
55	3-351-263-01	BUTTON (REC)	
56	3-351-262-01	BUTTON (STOP)	
57	*X-3351-207-1	GUIDE ASSY, BUTTON	
58	7-627-553-37	PRECISION SCREW +P 2X3 TYPE 3	
59	3-831-441-11	CUSHION (B)	
60	X-3351-208-1	HOLDER ASSY, EJECT	
61	3-343-335-01	LEVER, STOP	
62	3-351-258-01	LEVER, REC	
63	3-351-278-01	SHAFT (LEVER STOPPER)	
64	3-343-342-17	LEVER, PLAY	
65	*3-343-380-01	STOPPER, HEAD BASE	
66	3-336-735-11	SCREW (1.4X3), TAPPING	
67	3-351-277-01	SPRING, TENSION	
68	*3-343-264-61	COLLAR, SPRING	
69	3-343-346-01	SPRING, COMPRESSION	
70	3-342-067-01	SCREW (2X3.5), AZIMUTH	
71	3-342-028-01	SPRING, COMPRESSION	
72	7-627-553-87	SCREW, PRECISION +P 2X7	
73	3-318-237-01	SPRING, COMPRESSION	
74	3-336-274-01	SHIM (T=0.1)	
75	3-336-274-11	SHIM (T=0.2)	
76	X-3351-205-1	BASE ASSY, HEAD (including pinch roller)	
77	3-351-276-01	SPRING, TENSION	
78	X-3343-336-1	GEAR ASSY, S REEL	
	3-342-013-01	GEAR, S REEL	

Ref.No	Part No.	Description	Remarks
79	3-351-271-01	REFLECTOR	
80	7-627-852-07	SCREW, PRECISION +P 1.7X2.5	
81	*3-351-257-01	BRACKET (COUNTER)	
82	3-343-345-01	LEVER, SAFETY	
83	3-351-249-01	BELT	
84	3-343-359-01	BUSHING	
85	X-3351-210-1	ARM ASSY, FR	
86	*3-349-756-01	SPACER (FF GEAR)	
87	3-351-240-01	BELT	
88	3-351-231-01	PULLEY (MIDWAY)	
89	3-351-239-01	BELT	
90	X-3343-322-1	GEAR ASSY, T REEL	
91	X-3351-206-1	SPRING ASSY	
92	*X-3351-212-1	LEVER (P) ASSY, JOINT	
93	3-351-269-01	SPRING, TENSION	
94	3-319-501-41	SCREW (+ PTPWH) (2.6X5)	
95	3-343-256-01	SPACER (D)	
96	*3-345-840-11	LEVER (FR)	
97	3-343-374-01	SPRING, TENSION	
98	3-343-253-21	SCREW (M1.6X3.8)	
99	*3-329-460-01	SPACER	
100	3-351-242-01	PULLEY (COUNTER)	
201	3-321-813-21	WASHER, COTTER POLYETHYLENE	
904	1-550-463-11	COUNTER, TAPE (ULTRA SMALL)	
905	A-3133-368-A	MOTOR BLOCK ASSY (INCLUDING M902)	
HE901	1-543-474-11	HEAD, MAGNETIC (ERASE)	
HRP901	1-543-526-11	HEAD, MAGNETIC (REC/PB)	
S402	1-571-348-11	SWITCH, LEAF (FF/REW)	

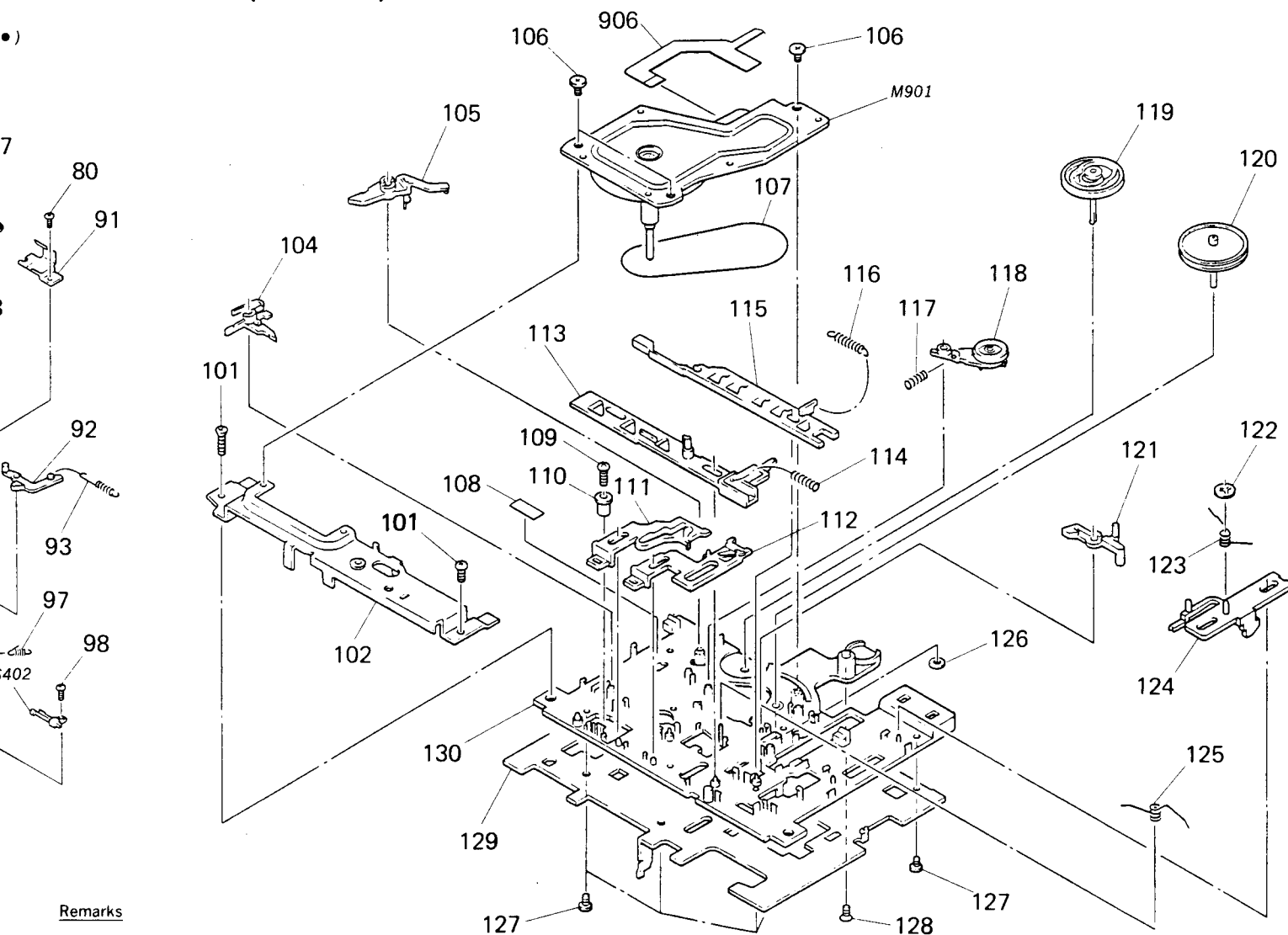
### 6-3. MECHANISM (MT-2000-61)





## SECTION 7 ELECTRICAL PARTS LIST

### 6-3. MECHANISM SECTION (2) (MT-2000-61)



Remarks

Ref.No	Part No.	Description	Remarks	Ref.No	Part No.	Description	Remarks
101	7-627-452-58	SCREW +K 2X6 TYPE1		118	X-3343-337-1	ARM ASSY, IDLER	
102	*3-351-254-01	BRACKET (MOTOR)		119	X-3343-307-1	PLATE ASSY, T REEL	
104	3-351-253-01	LEVER (B), SHUT-OFF		120	X-3351-209-1	PULLEY ASSY, MIDWAY	
105	3-345-814-01	LEVER (S), SHAFT OFF		121	3-342-010-01	ARM, CR	
106	3-303-809-51	SCREW (M1.7X5.0), SPECIAL HEAD		122	3-342-841-01	NUT, F PUSH	
107	3-351-230-01	BELT		123	3-351-274-01	SPRING, TORSION	
108	3-831-441-11	CUSHION (B)		124	3-351-238-01	SLIDER, EJECT	
109	7-627-552-77	SCREW, PRECISION +P 1.7X6		125	3-342-035-01	SPRING (FR)	
110	3-349-752-01	SPACER (FF)		126	3-570-615-00	POLY-WASHER (DIA. 1.2)	
111	3-343-340-01	LEVER, FF		127	3-343-254-51	SCREW (B1.7X2.8), TAPPING	
112	3-343-339-01	LEVER, REW		128	3-351-279-01	SCREW (M1.7), TAPPING	
113	3-351-250-04	SLIDER, POWER		129	*X-3351-211-1	PLATE ASSY, B	
114	3-343-346-01	SPRING, COMPRESSION		130	3-351-268-01	BRACKET, LEVER	
115	3-351-259-01	SLIDER, LOCK		906	1-630-106-11	PC BOARD, MOTOR FLEXIBLE	
116	3-351-283-01	SPRING, TENSION		M901	1-541-656-11	MOTOR (FWD)	
117	3-342-034-01	SPRING, TENSION					

## NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:  
MF:  $\mu$ F, PF:  $\mu$ F.

## RESISTORS

- All resistors are in ohms.
- F: nonflammable

## COILS

- MMH: mH, UH:  $\mu$ H

## SEMICONDUCTORS

In each case, U:  $\mu$ , for example:  
UA...:  $\mu$ A..., UPA...:  $\mu$ PA...,  
UPC...:  $\mu$ PC, UPD...:  $\mu$ PD...

Ref.No	Part No.	Description	Ref.No	Part No.	Description
901	*1-629-354-11	PC BOARD, SWITCH	C208	1-162-638-11	CERAMIC CHIP
902	1-629-355-11	PC BOARD, SWITCH FLEXIBLE	C209	1-124-778-00	ELECT CHIP
903	*A-3015-719-A	PC BOARD ASSY, MAIN	C210	1-126-193-11	ELECT CHIP
904	1-550-463-11	COUNTER, TAPE (ULTRA SMALL)	C211	1-126-193-11	ELECT CHIP
905	A-3133-368-A	MOTOR BLOCK ASSY (INCLUDING M902)	C212	1-164-161-11	CERAMIC CHIP
906	1-630-106-11	PC BOARD, MOTOR FLEXIBLE	C213	1-164-161-11	CERAMIC CHIP
CAPACITOR					
C101	1-163-810-00	CERAMIC CHIP	0.03MF	10%	25V
C102	1-124-778-00	ELECT CHIP	22MF	20%	6.3V
C103	1-126-193-11	ELECT CHIP	1MF	20%	50V
C104	1-126-193-11	ELECT CHIP	1MF	20%	50V
C105	1-126-191-11	ELECT CHIP	0.47MF	20%	50V
C106	1-124-779-00	ELECT CHIP	10MF	20%	16V
C107	1-126-193-11	ELECT CHIP	1MF	20%	50V
C108	1-162-638-11	CERAMIC CHIP	1MF	20%	16V
C109	1-124-778-00	ELECT CHIP	22MF	20%	6.3V
C110	1-126-193-11	ELECT CHIP	1MF	20%	50V
C111	1-126-193-11	ELECT CHIP	1MF	20%	50V
C112	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C113	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C114	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C115	1-163-015-00	CERAMIC CHIP	0.0033MF	10%	50V
C116	1-124-779-00	ELECT CHIP	10MF	20%	16V
C117	1-163-015-00	CERAMIC CHIP	0.0033MF	10%	50V
C118	1-163-015-00	CERAMIC CHIP	0.0033MF	10%	50V
C119	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C120	1-126-196-11	ELECT CHIP	3.3MF	20%	50V
C121	1-135-145-11	TANTAL. CHIP	0.47MF	10%	35V
C122	1-126-191-11	ELECT CHIP	0.47MF	20%	50V
C123	1-126-196-11	ELECT CHIP	3.3MF	20%	50V
C124	1-163-019-00	CERAMIC CHIP	0.0068MF	10%	50V
C125	1-163-810-00	CERAMIC CHIP	0.03MF	10%	25V
C126	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C127	1-126-192-11	ELECT CHIP	0.68MF	20%	50V
C128	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C129	1-126-191-11	ELECT CHIP	0.47MF	20%	50V
C130	1-163-810-00	CERAMIC CHIP	0.03MF	10%	25V
C131	1-126-207-11	ELECT CHIP	33MF	20%	4V
C132	1-126-246-11	ELECT CHIP	220MF	20%	4V
C133	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C134	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C135	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C136	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C137	1-163-015-00	CERAMIC CHIP	0.0033MF	10%	50V
C138	1-163-810-00	CERAMIC CHIP	0.03MF	10%	25V
C139	1-164-005-11	CERAMIC CHIP	0.47MF	25V	
C201	1-163-810-00	CERAMIC CHIP	0.03MF	10%	25V
C202	1-124-778-00	ELECT CHIP	22MF	20%	6.3V
C203	1-126-193-11	ELECT CHIP	1MF	20%	50V
C204	1-126-193-11	ELECT CHIP	1MF	20%	50V
C205	1-126-191-11	ELECT CHIP	0.47MF	20%	50V
C206	1-124-779-00	ELECT CHIP	10MF	20%	16V
C207	1-126-193-11	ELECT CHIP	1MF	20%	50V
C208	1-162-638-11	CERAMIC CHIP	1MF	20%	16V
C209	1-124-778-00	ELECT CHIP	22MF	20%	6.3V
C210	1-126-193-11	ELECT CHIP	1MF	20%	50V
C211	1-126-193-11	ELECT CHIP	1MF	20%	50V
C212	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C213	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C214	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C215	1-163-015-00	CERAMIC CHIP	0.0033MF	10%	50V
C216	1-124-779-00	ELECT CHIP	10MF	20%	16V
C217	1-163-015-00	CERAMIC CHIP	0.0033MF	10%	50V
C218	1-163-015-00	CERAMIC CHIP	0.0033MF	10%	50V
C219	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C220	1-126-196-11	ELECT CHIP	3.3MF	20%	50V
C221	1-126-191-11	ELECT CHIP	0.47MF	20%	50V
C222	1-126-191-11	ELECT CHIP	0.47MF	20%	50V
C223	1-126-196-11	ELECT CHIP	3.3MF	20%	50V
C224	1-163-019-00	CERAMIC CHIP	0.0068MF	10%	50V
C225	1-163-810-00	CERAMIC CHIP	0.03MF	10%	25V
C226	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C227	1-126-192-11	ELECT CHIP	0.68MF	20%	50V
C228	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C229	1-126-191-11	ELECT CHIP	0.47MF	20%	50V
C230	1-163-810-00	CERAMIC CHIP	0.03MF	10%	25V
C231	1-126-207-11	ELECT CHIP	33MF	20%	4V
C232	1-126-246-11	ELECT CHIP	220MF	20%	4V
C233	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C234	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C235	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C236	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C237	1-163-015-00	CERAMIC CHIP	0.0033MF	10%	50V
C238	1-163-810-00	CERAMIC CHIP	0.03MF	10%	25V
C239	1-164-005-11	CERAMIC CHIP	0.47MF	25V	
C301	1-126-209-11	ELECT CHIP	100MF	20%	4V
C302	1-126-208-11	ELECT CHIP	47MF	20%	4V
C303	1-124-779-00	ELECT CHIP	10MF	20%	16V
C304	1-126-246-11	ELECT CHIP	220MF	20%	4V
C305	1-126-208-11	ELECT CHIP	47MF	20%	4V
C306	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C307	1-126-208-11	ELECT CHIP	47MF	20%	4V
C308	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C309	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C310	1-124-779-00	ELECT CHIP	10MF	20%	16V
C311	1-126-207-11	ELECT CHIP	33MF	20%	4V
C312	1-126-193-11	ELECT CHIP	1MF	20%	50V
C313	1-124-472-11	ELECT	470MF	20%	10V
C314	1-126-196-11	ELECT CHIP	3.3MF	20%	50V
C315	1-164-222-11	CERAMIC CHIP	0.22MF	25V	
C316	1-126-207-11	ELECT CHIP	33MF	20%	4V
C317	1-126-190-	ELECT CHIP	0.33MF	20%	50V
C318	1-126-190-	ELECT CHIP	0.33MF	20%	50V
C319	1-126-190-	ELECT CHIP	0.33MF	20%	50V
C320	1-161-041-00	CERAMIC	0.0015MF	10%	50V
C321	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C322	1-126-207-11	ELECT CHIP	33MF	20%	4V
C323	1-126-193-11	ELECT CHIP	1MF	20%	50V

Ref.No	Part No.	Description			
C324	1-126-191-11	ELECT CHIP	0.47MF	20%	50V
C325	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C326	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C327	1-124-778-00	ELECT CHIP	22MF	20%	6.3V
C328	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C329	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C401	1-126-193-11	ELECT CHIP	1MF	20%	50V
C402	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C403	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C404	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C405	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C406	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C407	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C408	1-124-779-00	ELECT CHIP	10MF	20%	16V
C409	1-126-208-11	ELECT CHIP	47MF	20%	4V
C410	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C411	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C412	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C413	1-124-779-00	ELECT CHIP	10MF	20%	16V
C414	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C415	1-126-191-11	ELECT CHIP	0.47MF	20%	50V
C416	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C417	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V
C418	1-163-145-00	CERAMIC CHIP	0.0015MF	10%	50V
C419	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C420	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C421	1-163-023-00	CERAMIC CHIP	0.015MF	10%	50V
C422	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C423	1-126-195-11	ELECT CHIP	2.2MF	20%	50V
C424	1-135-145-11	TANTAL. CHIP	0.47MF	10%	35V
C425	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C426	1-124-779-00	ELECT CHIP	10MF	20%	16V
C427	1-135-148-21	TANTAL. CHIP	1.5MF	10%	16V
C428	1-135-202-21	TANTAL. CHIP	22MF	20%	6.3V
C429	1-126-209-11	ELECT CHIP	100MF	20%	4V
C430	1-126-193-11	ELECT CHIP	1MF	20%	50V
C431	1-126-206-11	ELECT CHIP	100MF	20%	6.3V
C432	1-126-208-11	ELECT CHIP	47MF	20%	4V
C433	1-126-193-11	ELECT CHIP	1MF	20%	50V
C434	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C435	1-126-196-11	ELECT CHIP	3.3MF	20%	50V
C436	1-126-208-11	ELECT CHIP	47MF	20%	4V
C437	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C438	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C439	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C440	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C441	1-162-638-11	CERAMIC CHIP	1MF		16V
C442	1-162-638-11	CERAMIC CHIP	1MF		16V
C443	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C444	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C445	1-164-234-11	CERAMIC CHIP	1MF		10V
C446	1-164-234-11	CERAMIC CHIP	1MF		10V
C601	1-124-779-00	ELECT CHIP	10MF	20%	16V
C602	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C603	1-124-779-00	ELECT CHIP	10MF	20%	16V
C604	1-130-736-11	FILM	0.01MF	5%	50V
C605	1-163-810-00	CERAMIC CHIP	0.03MF	10%	25V
C606	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C607	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C608	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C609	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C610	1-163-810-00	CERAMIC CHIP	0.03MF	10%	25V
C611	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
CN301	1-562-961-11	JACK (DC IN 6V)			
CN302	1-566-683-11	HOUSING, CONNECTOR (FPC) 10P			

Ref.No	Part No.	Description			
CN303	1-565-180-21	HOUSING, CONNECTOR 12P			
CN304	*1-566-001-11	PIN, CONNECTOR (PC BOARD) 4P			
CN305	*1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P			
D301	8-719-800-76	DIODE 1SS226			
D302	8-719-800-76	DIODE 1SS226			
D303	8-719-800-76	DIODE 1SS226			
D304	8-719-100-05	DIODE 1S2837			
D401	8-719-800-76	DIODE 1SS226			
D402	8-719-800-76	DIODE 1SS226			
D403	8-719-100-05	DIODE 1S2837			
D404	8-719-100-05	DIODE 1S2837			
D405	8-719-100-05	DIODE 1S2837			
D406	8-719-100-05	DIODE 1S2837			
D407	8-719-100-05	DIODE 1S2837			
D408	8-719-100-05	DIODE 1S2837			
D409	8-719-908-30	DIODE DA106K			
D410	8-719-100-05	DIODE 1S2837			
D412	8-719-800-76	DIODE 1SS226			
D413	8-719-800-76	DIODE 1SS226			
D414	8-719-800-76	DIODE 1SS226			
D415	8-719-800-76	DIODE 1SS226			
D416	8-719-100-05	DIODE 1S2837			
D601	8-719-800-76	DIODE 1SS226			
D602	8-719-800-76	DIODE 1SS226			
D603	8-719-100-05	DIODE 1S2837			
D604	8-719-800-76	DIODE 1SS226			
D901	8-719-938-11	DIODE SLP151B-60			
D902	8-719-902-51	DIODE SLP251B			
D903	8-719-902-51	DIODE SLP251B			
HE901	1-543-474-11	HEAD, MAGNETIC (ERASE)			
HRP901	1-543-526-11	HEAD, MAGNETIC (REC/PB)			
IC301	8-759-403-67	IC AN7015S			
IC302	8-759-701-07	IC NJM2063AM			
IC303	8-759-701-02	IC NJM2073M			
IC401	8-759-106-23	IC UPD4066BG			
IC402	8-759-204-94	IC TC74HC00F			
IC403	8-759-972-70	IC BA3708F			
IC404	8-759-106-23	IC UPD4066BG			
IC405	8-759-106-23	IC UPD4066BG			
IC406	8-759-942-06	IC MB81464-12PD			
IC407	8-759-972-80	IC CXD1148AQ			
IC408	8-759-984-04	IC SCI7700YNA			
IC601	8-759-106-92	IC UPD74HC161G			
IC602	8-759-909-45	IC CX20084			
IC603	8-759-802-28	IC LA5537			
IC604	8-759-106-23	IC UPD4066BG			
J301	1-507-999-11	JACK (MIC)			
J302	1-507-958-31	JACK (PHONES)			
J401	1-507-933-11	JACK (REMOTE)			
JR1	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR2	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR3	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR4	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR5	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR6	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR7	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR10	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR11	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR12	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR13	1-216-296-00	METAL GLAZE	0	5%	1/8W
L101	1-410-220-31	INDUCTOR CHIP 220UH			
L201	1-410-220-31	INDUCTOR CHIP 220UH			

Ref.No	Part No.	Description
L401	1-410-201-51	INDUCTOR CHIP 5.6UH
M901	1-541-656-11	MOTOR (FWD)
MIC901	1-542-092-11	MICROPHONE, ELECTRET CONDENSER
MIC902	1-542-092-11	MICROPHONE, ELECTRET CONDENSER
PH101	8-719-751-42	DIODE NJL5141E-AA
Q301	8-729-902-93	TRANSISTOR FMG4
Q302	8-729-903-30	TRANSISTOR DTC144TK
Q303	8-729-903-30	TRANSISTOR DTC144TK
Q304	8-729-402-81	TRANSISTOR XN4501
Q305	8-729-402-81	TRANSISTOR XN4501
Q306	8-729-902-93	TRANSISTOR FMG4
Q307	8-729-402-81	TRANSISTOR XN4501
Q308	8-729-903-10	TRANSISTOR FMW1
Q309	8-729-216-22	TRANSISTOR 2SA1162
Q310	8-729-903-30	TRANSISTOR DTC144TK
Q311	8-729-100-66	TRANSISTOR 2SC1623
Q312	8-729-100-66	TRANSISTOR 2SC1623
Q313	8-729-159-64	TRANSISTOR 2SD596
Q314	8-729-100-66	TRANSISTOR 2SC1623
Q315	8-729-402-81	TRANSISTOR XN4501
Q316	8-729-902-93	TRANSISTOR FMG4
Q401	8-729-162-44	TRANSISTOR 2SB624-BV4
Q402	8-729-100-66	TRANSISTOR 2SC1623
Q403	8-729-903-29	TRANSISTOR DTA144TK
Q404	8-729-903-29	TRANSISTOR DTA144TK
Q405	8-729-162-44	TRANSISTOR 2SB624-BV4
Q406	8-729-100-66	TRANSISTOR 2SC1623
Q407	8-729-100-66	TRANSISTOR 2SC1623
Q408	8-729-402-81	TRANSISTOR XN4501
Q409	8-729-100-66	TRANSISTOR 2SC1623
Q410	8-729-216-22	TRANSISTOR 2SA1162
Q411	8-729-903-30	TRANSISTOR DTC144TK
Q412	8-729-162-44	TRANSISTOR 2SB624-BV4
Q413	8-729-100-66	TRANSISTOR 2SC1623
Q414	8-729-903-30	TRANSISTOR DTC144TK
Q415	8-729-100-66	TRANSISTOR 2SC1623
Q416	8-729-402-81	TRANSISTOR XN4501
Q417	8-729-100-66	TRANSISTOR 2SC1623
Q418	8-729-100-66	TRANSISTOR 2SC1623
Q419	8-729-100-66	TRANSISTOR 2SC1623
Q420	8-729-100-66	TRANSISTOR 2SC1623
Q421	8-729-216-22	TRANSISTOR 2SA1162
Q422	8-729-100-66	TRANSISTOR 2SC1623
Q423	8-729-100-66	TRANSISTOR 2SC1623
Q424	8-729-100-66	TRANSISTOR 2SC1623
Q425	8-729-901-46	TRANSISTOR DTA114YK
Q426	8-729-900-52	TRANSISTOR DTC114YK
Q427	8-729-900-52	TRANSISTOR DTC114YK
Q428	8-729-901-46	TRANSISTOR DTA114YK
Q429	8-729-900-52	TRANSISTOR DTC114YK
Q430	8-729-900-52	TRANSISTOR DTC114YK
Q431	8-729-100-66	TRANSISTOR 2SC1623
Q432	8-729-903-10	TRANSISTOR FMW1
Q601	8-729-216-22	TRANSISTOR 2SA1162
Q602	8-729-100-66	TRANSISTOR 2SC1623
Q603	8-729-100-66	TRANSISTOR 2SC1623
Q604	8-729-162-44	TRANSISTOR 2SB624-BV4
Q605	8-729-100-66	TRANSISTOR 2SC1623
Q606	8-729-216-22	TRANSISTOR 2SA1162
Q607	8-729-100-66	TRANSISTOR 2SC1623
<b>RESISTOR</b>		
R102	1-216-049-00	METAL GLAZE 1K 5% 1/10W

Ref.No	Part No.	Description
R103	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W
R104	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W
R105	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
R106	1-216-037-00	METAL GLAZE 330 5% 1/10W
R107	1-216-097-00	METAL GLAZE 100K 5% 1/10W
R108	1-216-033-00	METAL GLAZE 220 5% 1/10W
R109	1-216-085-00	METAL GLAZE 33K 5% 1/10W
R110	1-216-105-00	METAL GLAZE 220K 5% 1/10W
R111	1-216-077-00	METAL GLAZE 15K 5% 1/10W
R112	1-216-113-00	METAL GLAZE 470K 5% 1/10W
R113	1-216-085-00	METAL GLAZE 33K 5% 1/10W
R114	1-216-117-00	METAL GLAZE 680K 5% 1/10W
R115	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R116	1-216-103-00	METAL GLAZE 180K 5% 1/10W
R117	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R118	1-216-037-00	METAL GLAZE 330 5% 1/10W
R119	1-216-105-00	METAL GLAZE 220K 5% 1/10W
R120	1-216-089-00	METAL GLAZE 47K 5% 1/10W
R121	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R122	1-216-112-00	METAL GLAZE 430K 5% 1/10W
R123	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W
R124	1-216-089-00	METAL GLAZE 47K 5% 1/10W
R125	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W
R126	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W
R127	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W
R128	1-216-025-00	METAL GLAZE 100 5% 1/10W
R129	1-217-671-11	METAL GLAZE 1 5% 1/10W
R130	1-216-021-00	METAL GLAZE 68 5% 1/10W
R131	1-216-077-00	METAL GLAZE 15K 5% 1/10W
R132	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
R202	1-216-049-00	METAL GLAZE 1K 5% 1/10W
R203	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W
R204	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W
R205	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
R206	1-216-037-00	METAL GLAZE 330 5% 1/10W
R207	1-216-097-00	METAL GLAZE 100K 5% 1/10W
R208	1-216-033-00	METAL GLAZE 220 5% 1/10W
R209	1-216-085-00	METAL GLAZE 33K 5% 1/10W
R210	1-216-105-00	METAL GLAZE 220K 5% 1/10W
R211	1-216-077-00	METAL GLAZE 15K 5% 1/10W
R212	1-216-113-00	METAL GLAZE 470K 5% 1/10W
R213	1-216-085-00	METAL GLAZE 33K 5% 1/10W
R214	1-216-117-00	METAL GLAZE 680K 5% 1/10W
R215	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R216	1-216-103-00	METAL GLAZE 180K 5% 1/10W
R217	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R218	1-216-037-00	METAL GLAZE 330 5% 1/10W
R219	1-216-105-00	METAL GLAZE 220K 5% 1/10W
R220	1-216-089-00	METAL GLAZE 47K 5% 1/10W
R221	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R222	1-216-112-00	METAL GLAZE 430K 5% 1/10W
R223	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W
R224	1-216-089-00	METAL GLAZE 47K 5% 1/10W
R225	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W
R226	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W
R227	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W
R228	1-216-025-00	METAL GLAZE 100 5% 1/10W
R229	1-217-671-11	METAL GLAZE 1 5% 1/10W
R230	1-216-021-00	METAL GLAZE 68 5% 1/10W
R231	1-216-077-00	METAL GLAZE 15K 5% 1/10W
R232	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
R301	1-216-049-00	METAL GLAZE 1K 5% 1/10W
R302	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R303	1-216-121-00	METAL GLAZE 1M 5% 1/10W
R304	1-216-105-00	METAL GLAZE 220K 5% 1/10W



Ref.No	Part No.	Description			
R305	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R306	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R307	1-216-039-00	METAL GLAZE	390	5%	1/10W
R308	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R309	1-216-025-00	METAL GLAZE	100	5%	1/10W
R310	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R311	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R312	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R313	1-216-095-00	METAL GLAZE	82K	5%	1/10W
R314	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R315	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R316	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R317	1-216-103-00	METAL GLAZE	180K	5%	1/10W
R318	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R319	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R320	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R321	1-216-013-00	METAL GLAZE	33	5%	1/10W
R322	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R323	1-216-074-00	METAL GLAZE	11K	5%	1/10W
R324	1-216-074-00	METAL GLAZE	11K	5%	1/10W
R325	1-216-029-00	METAL GLAZE	150	5%	1/10W
R326	1-216-041-00	METAL GLAZE	470	5%	1/10W
R327	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R328	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R329	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R330	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R331	1-216-009-00	METAL GLAZE	22	5%	1/10W
R332	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R333	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R334	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R335	1-216-035-00	METAL GLAZE	270	5%	1/10W
R401	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R402	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R403	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R404	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R405	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R406	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R407	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R408	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R409	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R410	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R411	1-216-117-00	METAL GLAZE	680K	5%	1/10W
R412	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R413	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R414	1-216-033-00	METAL GLAZE	220	5%	1/10W
R415	1-216-033-00	METAL GLAZE	220	5%	1/10W
R416	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R417	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R418	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R419	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R420	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R421	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R422	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R423	1-216-103-00	METAL GLAZE	180K	5%	1/10W
R424	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R425	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R426	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R427	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R428	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R429	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R430	1-216-115-00	METAL GLAZE	560K	5%	1/10W
R431	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R432	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R433	1-216-009-00	METAL GLAZE	22	5%	1/10W
R434	1-216-097-00	METAL GLAZE	100K	5%	1/10W

Ref.No	Part No.	Description			
R435	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R436	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R437	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R438	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R439	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R440	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R441	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R442	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R443	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R444	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R445	1-216-082-00	METAL GLAZE	24K	5%	1/10W
R446	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R447	1-216-117-00	METAL GLAZE	680K	5%	1/10W
R448	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R449	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R450	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R451	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R452	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R453	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R454	1-216-025-00	METAL GLAZE	100	5%	1/10W
R455	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R456	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R457	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R458	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R459	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R460	1-216-045-00	METAL GLAZE	680	5%	1/10W
R461	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R462	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R463	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R464	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R465	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R466	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R467	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R468	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R469	1-216-025-00	METAL GLAZE	100	5%	1/10W
R470	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R471	1-216-117-00	METAL GLAZE	680K	5%	1/10W
R472	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R473	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R474	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R475	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R476	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R477	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R478	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R479	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R480	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R481	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R482	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R483	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R484	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R485	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R486	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R487	1-216-080-00	METAL GLAZE	20K	5%	1/10W
R488	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R489	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R490	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R491	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R492	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R601	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R602	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R603	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R604	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R605	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R606	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R607	1-216-097-00	METAL GLAZE	100K	5%	1/10W

Ref.No	Part No.	Description
R608	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R609	1-216-748-11	METAL GLAZE 39K 5% 1/10W
R610	1-216-097-00	METAL GLAZE 100K 5% 1/10W
R611	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R612	1-216-089-00	METAL GLAZE 47K 5% 1/10W
R613	1-216-105-00	METAL GLAZE 220K 5% 1/10W
R614	1-216-081-00	METAL GLAZE 22K 5% 1/10W
R616	1-216-025-00	METAL GLAZE 100 5% 1/10W
R617	1-216-081-00	METAL GLAZE 22K 5% 1/10W
R618	1-216-081-00	METAL GLAZE 22K 5% 1/10W
R619	1-216-049-00	METAL GLAZE 1K 5% 1/10W
R620	1-216-117-00	METAL GLAZE 680K 5% 1/10W
R621	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R622	1-216-097-00	METAL GLAZE 100K 5% 1/10W
R623	1-216-097-00	METAL GLAZE 100K 5% 1/10W
R624	1-216-097-00	METAL GLAZE 100K 5% 1/10W
RV101	1-228-358-00	RES, ADJ, METAL GLAZE 2.2K
RV102	1-238-559-11	RES, ADJ, METAL GLAZE 500
RV201	1-228-358-00	RES, ADJ, METAL GLAZE 2.2K
RV202	1-238-559-11	RES, ADJ, METAL GLAZE 500
RV301	1-230-687-11	RES, VAR, CARBON 10K/10K (VOLUME)
RV601	1-238-522-11	RES, VAR, CARBON 47K (SPEED CONTROL)
RV602	1-230-873-11	RES, ADJ, METAL GLAZE 47K
S301	1-571-341-11	SWITCH, SLIDE (REC/PB)
S302	1-554-222-00	SWITCH, SLIDE (NOISE REDUCTION)
S303	1-554-222-00	SWITCH, SLIDE (TONE/MIC SENS)
S401	1-570-395-11	SWITCH, LEAF (POWER)
S402	1-571-348-11	SWITCH, LEAF (FF/REW)
S901	1-554-303-21	SWITCH, KEY BOARD (CUE MARKER)
S902	1-554-303-21	SWITCH, KEY BOARD (SOUND SCAN)
S903	1-554-222-00	SWITCH, SLIDE (PAUSE)
S904	1-554-222-00	SWITCH, SLIDE (AUTO STOP)
SP901	1-544-118-11	SPEAKER
T301	1-433-251-00	TRANSFORMER, BIAS OSCILLATOR
X401	1-567-918-11	VIBRATOR, CERAMIC (4MHz)

**ACCESSORY & PACKING MATERIAL**

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3-342-380-01	SHEET, SPEED HOLE
* 3-351-284-01	CUSHION (UPPER)
* 3-351-285-01	CUSHION (LOWER)
* 3-351-288-01	(US)....INDIVIDUAL CARTON
* 3-351-289-01	(Canadian, AEP, UK, E)....INDIVIDUAL CARTON
3-351-296-01	CASE, CARRYING
3-703-468-11	BAG, POLYETHYLENE
3-786-870-11	(Canadian, AEP, UK, E)....MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE)
3-786-870-21	(US)....MANUAL, INSTRUCTION (ENGLISH)
3-786-870-41	(AEP)....MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN)